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Please note, Follow-Up Procedure Revisions or Report Revisions do not include Authorization Pages, Indices, Section General, and/or Appendices unless revisions were required or requested.

Should you have any questions, after reviewing the material, or need to report any inaccuracies, please reach out to your UL representative or find UL contact details for your local Customer Service Department at <https://www.ul.com/about/locations>.

Please find attached the related material

For your convenience, the below describes the related updates:

For revised/new documentation, please reference 2021-06-08 in the page headings. Certificate of Compliance format now separates US and Canada certified Products by specified scheme and category.

E501654-vol1-Index
E501654-20190114-CertificateofCompliance
E501654-20190114-Description
E501654-20190114-TestRecord

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Product	Section	USR and/or CNR
<p>Double Protection Optical Isolators,</p> <p>DIP4 Models TD810, TD814, TD815, TD816, TD817, TD818, TD819, TD816L, TD851, TD852, TD3010-4L, TD3011-4L, TD3012-4L, TD3021-4L, TD3022-4L, TD3023-4L, TD3031-4L, TD3032-4L, TD3033-4L, TD3040-4L, TD3042-4L, TD3043-4L, TD3051-4L, TD3052-4L, TD3053-4L, TD3061-4L, TD3062-4L, TD3063-4L, TD3071-4L, TD3072-4L, TD3073-4L, TD3081-4L, TD3082-4L, TD3083-4L, and TD8145; all models may be followed by additional letters and/or numbers;</p> <p>LSOP4/LSOP5 Models TD1010, TD1011, TD1012, TD1013, TD1014, TD1015, TD1016, TD1017, TD1018, TD1019, TD1110, TD1111, TD1112, TD1113, TD1114, TD1115, TD1116, TD1117, TD1118, TD1119, TDL351, TDL352, TDL354, TDL355, TDL356L, TDL358, TDL359, TDL501, TDL601, TDL701, TDL3010, TDL3011, TDL3012, TDL3021, TDL3022, TDL3023, TDL3031, TDL3032, TDL3033, TDL3041, TDL3042, TDL3043, TDL3051, TDL3052, TDL3053, TDL3061, TDL3062, TDL3063, TDL3071, TDL3072, TDL3073, TDL3081, TDL3082, TDL3083, and TDL3545; all models may be followed by additional letters and/or numbers;</p> <p>DIP7/DIP8 Models 6N135, 6N136, 6N137, 6N138, 6N139, TD8D52, TDR0213, TDR0223, TD824, TD825, TD826, TD827, TDR1213, TDR1223, TDR2213, TDR2223, TD2530, TD2531, TD2730, TD2731, TD3120, TD3120L, TD3150, TD3150L, TDR3213, TDR3223, TD4502, TD4503, TD4504, TDR210-8L, TDR211-8L, TDR212-8L, TDR213-8L, TDR214-8L, TDR215-8L, TDR216-8L, TDR217-8L, TDR218-8L, TDR219-8L, TDR410-8L, TDR411-8L, TDR412-8L, TDR413-8L, TDR414-8L, TDR415-8L, TDR416-8L, TDR417-8L, TDR418-8L, and TDR419-8L; all models may be followed by additional letters and/or numbers;</p> <p>DIP6 Models 4N25, 4N26, 4N27, 4N28, 4N29, 4N30, 4N31, 4N32, 4N33, 4N35, 4N36, 4N37, 4N38, H11AAX, HAAAG1, H11B0, H11B1, H11B2, H11B3, H11B4, H11B5, H11B6, H11B7, H11B8, H11B9, H11DX, H11G0, H11G1, H11BG2, H11G3, H11G4, H11G5, H11G6, H11G7, H11G8, H11G9, CNY17-0, CNY17-1, CNY17-2, CNY17-3, CNY17-4, CNY17-5, CNY17-6, CNY17-7, CNY17-8, CNY17-9, CN17F-0, CN17F-1, CN17F-2, CN17F-3, CN17F-4, CN17F-5, CN17F-6, CN17F-7, CN17F-8, CN17F-9, H11L1, H11L2, H11L3, TD3010, TD3011, TD3012, TD3021, TD3022, TD3023, TD3031, TD3032, TD3033, TD3041, TD3042, TD3043, TD3051, TD3052, TD3053, TD3061, TD3062, TD3063, TD3071, TD3072, TD3073, TD3081, TD3082, and TD3083; all models may be followed by additional letters and/or numbers;</p>	1	USR, CNR

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Product	Section	USR and/or CNR
<p>Double Protection Optical Isolators,</p> <p>SOP4/SOP5 Models TD351, TD352, TD354, TD355, TD356, TD356L, TD357, TD358, TD359, TD3545, TDM501, TDM501R, TDM601, TDM601R, TDM701, TDM3010, TDM3011, TDM3012, TDM3021, TDM3022, TDM3023, TDM3031, TDM3032, TDM3033, TDM3041, TDM3042, TDM3043, TDM3051, TDM3052, TDM3053, TDM3061, TDM3062, TDM3063, TDM3071, TDM3072, TDM3073, TDM3081, TDM3082, and TDM3083; all models may be followed by additional letters and/or numbers.</p>	1	USR, CNR
<p>Double Protection Optical Isolators,</p> <p>DIP4 Models TDR210-4L, TDR211-4L, TDR212-4L, TDR213-4L, TDR214-4L, TDR215-4L, TDR216-4L, TDR217-4L, TDR218-4L, TDR219-4L, TDR410-4L, TDR411-4L, TDR412-4L, TDR413-4L, TDR414-4L, TDR415-4L, TDR416-4L, TDR417-4L, TDR418-4L, and TDR419-4L; all models may be followed by additional letters and/or numbers;</p> <p>LSOP4/LSOP5 Models TDLR210, TDLR211, TDLR212, TDLR213, TDLR214, TDLR215, TDLR216, TDLR217, TDLR218, TDLR219, TDLR410, TDLR411, TDLR412, TDLR413, TDLR414, TDLR415, TDLR416, TDLR417, TDLR418, and TDLR419; all models may be followed by additional letters and/or numbers;</p> <p>DIP7/DIP8 Model TD7840; may be followed by additional letters and/or numbers;</p> <p>DIP6 Models TDR210-6L, TDR211-6L, TDR212-6L, TDR213-6L, TDR214-6L, TDR215-6L, TDR216-6L, TDR217-6L, TDR218-6L, TDR219-6L, TDR410-6L, TDR411-6L, TDR412-6L, TDR413-6L, TDR414-6L, TDR415-6L, TDR416-6L, TDR417-6L, TDR418-6L, and TDR419-6L; all models may be followed by additional letters and/or numbers;</p> <p>SOP4/SOP5 Models TD152, TD155E, and TD155ER; all models may be followed by additional letters and/or numbers.</p>	1	USR

CERTIFICATE OF COMPLIANCE

Certificate Number UL-CA-2002867-1
Report Reference E501654-20190114
Date 16-Jun-2021

Issued to: Fujian Lightning Optoelectronic Co Ltd
Optoelectronic Industry Park
Hutou Town
Anxi County Quanzhou , Fujian,
China 362411

This is to certify that representative samples of FPQU8 - Optical Isolators Certified for Canada - Component
See Addendum Page for Product Designation(s).

Have been investigated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

Standard(s) for Safety: CSA Component Acceptance Service Notice No. 5A, Issue Date: 1998-01-23

Additional Information: See the UL Online Certifications Directory at <https://iq.ulprospector.com> for additional information

This *Certificate of Compliance* does not provide authorization to apply the UL Recognized Component Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.



Bruce Mahrenholz, Director North American Certification Program

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This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description
DIP6, 4N25, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N26, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N27, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N28, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N29, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N30, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N31, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N32, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N33, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N35, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N36, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N37, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N38, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8, 6N135, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8, 6N136, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8, 6N137, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8, 6N138, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8, 6N139, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, CN17F-0, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac



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DIP6 , CN17F-1, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CN17F-2, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CN17F-3, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CN17F-4, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CN17F-5, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CN17F-6, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CN17F-7, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CN17F-8, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CN17F-9, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CNY17-0, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CNY17-1, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CNY17-2, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CNY17-3, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CNY17-4, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CNY17-5, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CNY17-6, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CNY17-7, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CNY17-8, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CNY17-9, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11AAX, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11AG1, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11B0, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11B1, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac

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DIP6 , H11B2, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11B3, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11B4, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11B5, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11B6, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11B7, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11B8, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11B9, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11BG2, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11DX, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11G0, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11G1, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11G2, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11G3, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11G4, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11G5, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11G6, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11G7, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11G8, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11G9, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11L1, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11L2, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11L3, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac



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LSOP4/LSOP5 , TD1010, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1011, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1012, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1013, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1014, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1015, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1016, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1017, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1018, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1019, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1110, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1111, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1112, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1113, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1114, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1115, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1116, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1117, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1118, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1119, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD152, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD155E, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD155ER, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac



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DIP7/DIP8 , TD2530, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD2531, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD2600, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD2601, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD2611, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD2630, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD2631, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD2730, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD2731, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3010, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3010-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3011, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3011-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3012, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3012-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3021, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3021-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3022, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3022-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3023, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3023-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3031, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3031-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac



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DIP6 , TD3032, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3032-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3033, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3033-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3040-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3041, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3042, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3042-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3043, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3043-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3051, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3051-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3052, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3052-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3053, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3053-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3061, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3061-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3062, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3062-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3063, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3063-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3071, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac



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DIP4 , TD3071-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3072, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3072-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3073, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3073-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3081, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3081-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3082, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3082-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3083, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3083-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD3120, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD3120L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD3120R, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD3150, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD3150L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD3150R, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD351, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD352, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD354, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD3545, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD355, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD356, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac



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SOP4/SOP5 , TD356L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD357, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD358, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD359, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD4502, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD4503, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD4504, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD7840, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD810, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD814, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD8145, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD815, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD816, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD816L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD817, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD818, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD819, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD824, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD825, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD826, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD827, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD851, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
TD852, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac, DIP4



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DIP4 , TD852, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD8D52, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3010, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3011, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3012, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3021, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3022, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3023, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3031, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3032, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3033, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3041, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3042, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3043, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3051, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3052, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3053, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3061, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3062, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3063, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3071, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3072, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3073, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac



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LSOP4/LSOP5, TDL3081, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5, TDL3082, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5, TDL3083, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5, TDL351, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5, TDL352, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5, TDL354, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5, TDL3545, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5, TDL355, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5, TDL356L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5, TDL358, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5, TDL359, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5, TDL501, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5, TDL601, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5, TDL701, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5, TDLR210, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5, TDLR211, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5, TDLR212, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5, TDLR213, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5, TDLR214, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5, TDLR215, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5, TDLR216, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5, TDLR217, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5, TDLR218, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac



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LSOP4/LSOP5 , TDLR219, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR410, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR411, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR412, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR413, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR414, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR415, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR416, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR417, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR418, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR419, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3010, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3011, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3012, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3021, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3022, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3023, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3031, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3032, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3033, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3041, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3042, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3043, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac



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SOP4/SOP5 , TDM3051, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3052, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3053, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3061, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3062, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3063, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3071, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3072, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3073, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3081, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3082, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3083, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM501, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM501R, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM601, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM601R, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM701, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR0213, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR0223, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR1213, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR1223, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR210-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR210-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac



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DIP7/DIP8 , TDR210-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR211-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR211-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR211-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR212-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR212-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR212-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR213-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR213-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR213-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR214-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR214-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR214-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
TDR214-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac, DIP7/DIP8
DIP4 , TDR215-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR215-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR215-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR216-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR216-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR216-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR217-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR217-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac



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DIP7/DIP8 , TDR217-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR218-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR218-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR218-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR219-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR219-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR219-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR2213, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR2223, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR3213, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR3223, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR410-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR410-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR410-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR411-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR411-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR411-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR412-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR412-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR412-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR413-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR413-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR413-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac

B. Mahrenholz

Bruce Mahrenholz, Director North American Certification Program

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CERTIFICATE OF COMPLIANCE

Certificate Number UL-CA-2002867-1
Report Reference E501654-20190114
Date 16-Jun-2021

DIP4 , TDR414-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR414-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR414-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR415-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR415-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR415-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR416-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR416-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR416-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR417-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR417-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR417-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR418-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR418-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR418-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR419-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR419-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR419-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac



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CERTIFICATE OF COMPLIANCE

Certificate Number UL-US-L501654-31-41109102-2
Report Reference E501654-20190114
Date 16-Jun-2021

Issued to: Fujian Lightning Optoelectronic Co Ltd
Optoelectronic Industry Park
Hutou Town
Anxi County Quanzhou , Fujian,
China 362411

This is to certify that representative samples of FPQU2 - Optical Isolators - Component
See Addendum Page for Product Designation(s).

Have been investigated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

Standard(s) for Safety: UL 1577, 5th Ed, Issue Date: 2014-04-25, Revision Date: 2019-06-11

Additional Information: See the UL Online Certifications Directory at <https://iq.ulprospector.com> for additional information

This *Certificate of Compliance* does not provide authorization to apply the UL Recognized Component Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.



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Report Reference E501654-20190114
Date 16-Jun-2021

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description
DIP6, 4N25, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N26, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N27, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N28, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N29, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N30, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N31, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N32, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N33, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N35, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N36, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N37, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, 4N38, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8, 6N135, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8, 6N136, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8, 6N137, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8, 6N138, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8, 6N139, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6, CN17F-0, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac



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DIP6 , CN17F-1, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CN17F-2, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CN17F-3, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CN17F-4, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CN17F-5, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CN17F-6, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CN17F-7, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CN17F-8, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CN17F-9, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CNY17-0, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CNY17-1, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CNY17-2, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CNY17-3, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CNY17-4, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CNY17-5, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CNY17-6, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CNY17-7, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CNY17-8, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , CNY17-9, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11AAX, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11AG1, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11B0, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11B1, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac



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Report Reference E501654-20190114
Date 16-Jun-2021

DIP6 , H11B2, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11B3, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11B4, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11B5, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11B6, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11B7, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11B8, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11B9, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11BG2, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11DX, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11G0, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11G1, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11G2, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11G3, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11G4, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11G5, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11G6, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11G7, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11G8, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11G9, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11L1, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11L2, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , H11L3, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac



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Certificate Number UL-US-L501654-31-41109102-2
Report Reference E501654-20190114
Date 16-Jun-2021

LSOP4/LSOP5 , TD1010, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1011, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1012, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1013, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1014, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1015, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1016, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1017, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1018, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1019, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1110, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1111, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1112, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1113, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1114, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1115, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1116, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1117, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1118, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TD1119, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD152, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD155E, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD155ER, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac

B. Mahlenz

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CERTIFICATE OF COMPLIANCE

Certificate Number UL-US-L501654-31-41109102-2
Report Reference E501654-20190114
Date 16-Jun-2021

DIP7/DIP8 , TD2530, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD2531, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD2600, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD2601, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD2611, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD2630, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD2631, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD2730, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD2731, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3010, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3010-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3011, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3011-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3012, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3012-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3021, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3021-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3022, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3022-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3023, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3023-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3031, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3031-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac



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CERTIFICATE OF COMPLIANCE

Certificate Number UL-US-L501654-31-41109102-2
Report Reference E501654-20190114
Date 16-Jun-2021

DIP6 , TD3032, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3032-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3033, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3033-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3040-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3041, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3042, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3042-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3043, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3043-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3051, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3051-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3052, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3052-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3053, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3053-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3061, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3061-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3062, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3062-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3063, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3063-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3071, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac

B. Mahrenholz

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DIP4 , TD3071-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3072, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3072-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3073, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3073-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3081, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3081-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3082, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3082-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TD3083, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD3083-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD3120, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD3120L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD3120R, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD3150, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD3150L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD3150R, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD351, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD352, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD354, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD3545, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD355, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD356, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac

B. Mahrenholz

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Certificate Number UL-US-L501654-31-41109102-2
Report Reference E501654-20190114
Date 16-Jun-2021

SOP4/SOP5 , TD356L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD357, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD358, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TD359, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD4502, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD4503, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD4504, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD7840, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD810, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD814, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD8145, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD815, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD816, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD816L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD817, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD818, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD819, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD824, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD825, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD826, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD827, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TD851, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
TD852, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac, DIP4



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DIP4 , TD852, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TD8D52, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3010, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3011, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3012, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3021, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3022, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3023, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3031, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3032, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3033, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3041, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3042, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3043, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3051, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3052, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3053, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3061, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3062, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3063, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3071, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3072, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3073, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac

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LSOP4/LSOP5 , TDL3081, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3082, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3083, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL351, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL352, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL354, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL3545, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL355, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL356L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL358, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL359, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL501, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL601, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDL701, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR210, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR211, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR212, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR213, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR214, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR215, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR216, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR217, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR218, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac



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LSOP4/LSOP5 , TDLR219, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR410, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR411, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR412, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR413, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR414, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR415, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR416, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR417, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR418, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
LSOP4/LSOP5 , TDLR419, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3010, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3011, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3012, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3021, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3022, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3023, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3031, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3032, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3033, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3041, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3042, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3043, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac



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SOP4/SOP5 , TDM3051, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3052, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3053, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3061, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3062, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3063, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3071, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3072, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3073, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3081, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3082, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM3083, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM501, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM501R, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM601, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM601R, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
SOP4/SOP5 , TDM701, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR0213, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR0223, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR1213, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR1223, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR210-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR210-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac



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DIP7/DIP8 , TDR210-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR211-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR211-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR211-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR212-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR212-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR212-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR213-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR213-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR213-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR214-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR214-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR214-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
TDR214-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac, DIP7/DIP8
DIP4 , TDR215-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR215-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR215-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR216-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR216-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR216-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR217-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR217-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac



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DIP7/DIP8 , TDR217-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR218-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR218-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR218-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR219-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR219-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR219-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR2213, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR2223, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR3213, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR3223, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR410-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR410-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR410-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR411-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR411-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR411-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR412-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR412-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR412-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR413-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR413-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR413-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac



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DIP4 , TDR414-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR414-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR414-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR415-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR415-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR415-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR416-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR416-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR416-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR417-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR417-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR417-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR418-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR418-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR418-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP4 , TDR419-4L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP6 , TDR419-6L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac
DIP7/DIP8 , TDR419-8L, may be followed by additional letters and/or numbers	Double protection optical isolators, having an isolation rating up to 5000 Vac



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File E501654
Project 4788547630

January 14, 2019

REPORT

ON

COMPONENT - OPTICAL ISOLATING DEVICES

Fujian Lightning Optoelectronics Co. Ltd.
Quanzhou, Fujian, China

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DESCRIPTION

PRODUCT COVERED:

USR, CNR - Double Protection, Optical Isolator, DIP4 Models TD810, TD814, TD815, TD816, TD817, TD818, TD819, TD816L, TD851, TD852, TD3010-4L, TD3011-4L, TD3012-4L, TD3021-4L, TD3022-4L, TD3023-4L, TD3031-4L, TD3032-4L, TD3033-4L, TD3040-4L, TD3042-4L, TD3043-4L, TD3051-4L, TD3052-4L, TD3053-4L, TD3061-4L, TD3062-4L, TD3063-4L, TD3071-4L, TD3072-4L, TD3073-4L, TD3081-4L, TD3082-4L, TD3083-4L, and TD8145; LSOP4/LSOP5 Models TD1010, TD1011, TD1012, TD1013, TD1014, TD1015, TD1016, TD1017, TD1018, TD1019, TD1110, TD1111, TD1112, TD1113, TD1114, TD1115, TD1116, TD1117, TD1118, TD1119, TDL351, TDL352, TDL354, TDL355, TDL356L, TDL358, TDL359, TDL501, TDL601, TDL701, TDL3010, TDL3011, TDL3012, TDL3021, TDL3022, TDL3023, TDL3031, TDL3032, TDL3033, TDL3041, TDL3042, TDL3043, TDL3051, TDL3052, TDL3053, TDL3061, TDL3062, TDL3063, TDL3071, TDL3072, TDL3073, TDL3081, TDL3082, TDL3083, and TDL3545; DIP6 Models 4N25, 4N26, 4N27, 4N28, 4N29, 4N30, 4N31, 4N32, 4N33, 4N35, 4N36, 4N37, 4N38, CNY17-0, CNY17-1, CNY17-2, CNY17-3, CNY17-4, CNY17-5, CNY17-6, CNY17-7, CNY17-8, CNY17-9, CN17F-0, CN17F-1, CN17F-2, CN17F-3, CN17F-4, CN17F-5, CN17F-6, CN17F-7, CN17F-8, CN17F-9, H11AAX, H11AG1, H11B0, H11B1, H11B2, H11B3, H11B4, H11B5, H11B6, H11B7, H11B8, H11B9, H11DX, H11G0, H11G1, H11G2, H11G3, H11G4, H11G5, H11G6, H11G7, H11G8, H11G9, H11L1, H11L2, H11L3, TD3010, TD3011, TD3012, TD3021, TD3022, TD3023, TD3031, TD3032, TD3033, TD3041, TD3042, TD3043, TD3051, TD3052, TD3053, TD3061, TD3062, TD3063, TD3071, TD3072, TD3073, TD3081, TD3082, and TD3083; DIP7/DIP8 Models 6N135, 6N136, 6N137, 6N138, 6N139, TD824, TD825, TD826, TD827, TD8D52, TD2530, TD2531, TD2600, TD2601, TD2611, TD2630, TD2631, TD2730, TD2731, TD3120, TD3120L, TD3120R, TD3150, TD3150L, TD3150R, TD4502, TD4503, TD4504, TDR210-8L, TDR211-8L, TDR212-8L, TDR213-8L, TDR214-8L, TDR215-8L, TDR216-8L, TDR217-8L, TDR218-8L, TDR219-8L, TDR410-8L, TDR411-8L, TDR412-8L, TDR413-8L, TDR414-8L, TDR415-8L, TDR416-8L, TDR417-8L, TDR418-8L, and TDR419-8L, TDR0213, TDR0223, TDR1213, TDR1223, TDR2213, TDR2223, TDR3213, TDR3223; SOP4/SOP5 Models TD351, TD352, TD354, TD355, TD356, TD356L, TD357, TD358, TD359, TD3545, TDM501, TDM501R, TDM601, TDM601R, TDM701, TDM3010, TDM3011, TDM3012, TDM3021, TDM3022, TDM3023, TDM3031, TDM3032, TDM3033, TDM3041, TDM3042, TDM3043, TDM3051, TDM3052, TDM3053, TDM3061, TDM3062, TDM3063, TDM3071, TDM3072, TDM3073, TDM3081, TDM3082, and **TDM3083; all models may be followed by additional letters and/or numbers.**

USR - Double Protection, Optical Isolator, DIP4 Models TDR210-4L, TDR211-4L, TDR212-4L, TDR213-4L, TDR214-4L, TDR215-4L, TDR216-4L, TDR217-4L, TDR218-4L, TDR219-4L, TDR410-4L, TDR411-4L, TDR412-4L, TDR413-4L, TDR414-4L, TDR415-4L, TDR416-4L, TDR417-4L, TDR418-4L, and TDR419-4L; LSOP4/LSOP5 Models TDLR210, TDLR211, TDLR212, TDLR213, TDLR214, TDLR215, TDLR216, TDLR217, TDLR218, TDLR219, TDLR410, TDLR411, TDLR412, TDLR413, TDLR414, TDLR415, TDLR416, TDLR417, TDLR418, and TDLR419; DIP6 Models TDR210-6L, TDR211-6L, TDR212-6L, TDR213-6L, TDR214-6L, TDR215-6L, TDR216-6L, TDR217-6L, TDR218-6L, TDR219-6L, TDR410-6L, TDR411-6L, TDR412-6L, TDR413-6L, TDR414-6L, TDR415-6L, TDR416-6L, TDR417-6L, TDR418-6L, and TDR419-6L; DIP7/DIP8 Model TD7840; SOP4/SOP5 Models TD152, TD155E, and **TD155ER; all models may be followed by additional letters and/or numbers.**

and Report

MAXIMUM RATINGS PER CHANNEL (at 25°C ambient) (Ⓢ):

Model	Current (mA)		Power (mW)		Isolation Voltage at 60 sec [Vrms]	Max Operating Temp(°C)	Max Storage Temp(°C)	Max Junction Temp(°C)
	Emitter	Sensor	Emitter	Sensor				
4N25	60	50	120	150	5000	110	150	125
4N26	60	50	120	150	5000	110	150	125
4N27	60	50	120	150	5000	110	150	125
4N28	60	50	120	150	5000	110	150	125
4N29	60	80	120	150	5000	110	150	125
4N30	60	80	120	150	5000	110	150	125
4N31	60	80	120	150	5000	110	150	125
4N32	60	80	120	150	5000	110	150	125
4N33	60	80	120	150	5000	110	150	125
4N35	60	50	120	150	5000	110	150	125
4N36	60	50	120	150	5000	110	150	125
4N37	60	50	120	150	5000	110	150	125
4N38	60	50	120	150	5000	110	150	125
6N135	25	50	100	100	5000	110	150	125
6N136	25	50	100	100	5000	110	150	125
6N137	25	50	100	85	5000	110	150	125
6N138	25	60	100	100	5000	110	150	125
6N139	25	60	100	100	5000	110	150	125
CNY17-0	60	50	120	150	5000	110	150	125
CNY17-1	60	50	120	150	5000	110	150	125
CNY17-2	60	50	120	150	5000	110	150	125
CNY17-3	60	50	120	150	5000	110	150	125
CNY17-4	60	50	120	150	5000	110	150	125
CNY17-5	60	50	120	150	5000	110	150	125
CNY17-6	60	50	120	150	5000	110	150	125
CNY17-7	60	50	120	150	5000	110	150	125
CNY17-8	60	50	120	150	5000	110	150	125
CNY17-9	60	50	120	150	5000	110	150	125
CNY17F-0	60	50	120	150	5000	110	150	125
CNY17F-1	60	50	120	150	5000	110	150	125
CNY17F-2	60	50	120	150	5000	110	150	125
CNY17F-3	60	50	120	150	5000	110	150	125
CNY17F-4	60	50	120	150	5000	110	150	125
CNY17F-5	60	50	120	150	5000	110	150	125
CNY17F-6	60	50	120	150	5000	110	150	125
CNY17F-7	60	50	120	150	5000	110	150	125
CNY17F-8	60	50	120	150	5000	110	150	125
CNY17F-9	60	50	120	150	5000	110	150	125
H11AAX	60	50	120	150	5000	110	150	125
H11AG1	60	50	120	150	5000	110	150	125
H11B0	60	80	120	150	5000	110	150	125
H11B1	60	80	120	150	5000	110	150	125
H11B2	60	80	120	150	5000	110	150	125
H11B3	60	80	120	150	5000	110	150	125
H11B4	60	80	120	150	5000	110	150	125
H11B5	60	80	120	150	5000	110	150	125
H11B6	60	80	120	150	5000	110	150	125
H11B7	60	80	120	150	5000	110	150	125
H11B8	60	80	120	150	5000	110	150	125
H11B9	60	80	120	150	5000	110	150	125
H11DX	60	50	120	300	5000	110	150	125
H11G0	60	150	120	300	5000	110	150	125
H11G1	60	150	120	300	5000	110	150	125
H11G2	60	150	120	300	5000	110	150	125
H11G3	60	150	120	300	5000	110	150	125
H11G4	60	150	120	300	5000	110	150	125
H11G5	60	150	120	300	5000	110	150	125

and Report

MAXIMUM RATINGS PER CHANNEL (at 25°C ambient) (Ⓢ):

Model	Current (mA)		Power (mW)		Isolation Voltage at 60 sec [Vrms]	Max Operating Temp(°C)	Max Storage Temp(°C)	Max Junction Temp(°C)
	Emitter	Sensor	Emitter	Sensor				
H11G6	60	150	120	300	5000	110	150	125
H11G7	60	150	120	300	5000	110	150	125
H11G8	60	150	120	300	5000	110	150	125
H11G9	60	150	120	300	5000	110	150	125
H11L1	60	50	120	150	5000	110	150	125
H11L2	60	50	120	150	5000	110	150	125
H11L3	60	50	120	150	5000	110	150	125
TD8D52	60	150	100	150	5000	110	150	125
TD152	25	2500#	100	150	5000	110	150	125
TD155E	25	1000#	100	150	5000	110	150	125
TD155ER	25	1000#	100	150	5000	110	150	125
TD351	60	50	100	150	5000	110	150	125
TD352	60	150	100	150	5000	110	150	125
TD354	±60	50	100	150	5000	110	150	125
TD355	60	80	100	150	5000	110	150	125
TD356	60	50	100	150	5000	110	150	125
TD356L	60	50	100	150	5000	110	150	125
TD357	60	50	100	150	5000	110	150	125
TD358	60	50	100	150	5000	110	150	125
TD359	60	50	100	150	5000	110	150	125
TD810	60	50	100	150	5000	110	150	125
TD814	60	50	100	150	5000	110	150	125
TD815	60	80	100	150	5000	110	150	125
TD816	60	50	100	150	5000	110	150	125
TD816L	60	50	100	150	5000	110	150	125
TD817	60	50	100	150	5000	110	150	125
TD818	60	50	100	150	5000	110	150	125
TD819	60	50	100	150	5000	110	150	125
TD824	±60	50	100	150	5000	110	150	125
TD825	60	80	100	150	5000	110	150	125
TD826	60	50	100	150	5000	110	150	125
TD827	60	50	100	150	5000	110	150	125
TD851	60	50	100	150	5000	110	150	125
TD852	60	150	100	150	5000	110	150	125
TD1010	60	50	100	150	5000	110	150	125
TD1011	60	50	100	150	5000	110	150	125
TD1012	60	50	100	150	5000	110	150	125
TD1013	60	50	100	150	5000	110	150	125
TD1014	60	50	100	150	5000	110	150	125
TD1015	60	50	100	150	5000	110	150	125
TD1016	60	50	100	150	5000	110	150	125
TD1017	60	50	100	150	5000	110	150	125
TD1018	60	50	100	150	5000	110	150	125
TD1019	60	50	100	150	5000	110	150	125
TD1110	60	50	100	150	5000	110	150	125
TD1111	60	50	100	150	5000	110	150	125
TD1112	60	50	100	150	5000	110	150	125
TD1113	60	50	100	150	5000	110	150	125
TD1114	60	50	100	150	5000	110	150	125
TD1115	60	50	100	150	5000	110	150	125
TD1116	60	50	100	150	5000	110	150	125
TD1117	60	50	100	150	5000	110	150	125
TD1118	60	50	100	150	5000	110	150	125
TD1119	60	50	100	150	5000	110	150	125
TD2530	25	50	100	100	5000	110	150	125
TD2531	25	50	100	100	5000	110	150	125
TD2600	25	50	100	85	5000	110	150	125

and Report

MAXIMUM RATINGS PER CHANNEL (at 25°C ambient) (Ⓢ):

Model	Current (mA)		Power (mW)		Isolation Voltage at 60 sec [Vrms]	Max Operating Temp(°C)	Max Storage Temp(°C)	Max Junction Temp(°C)
	Emitter	Sensor	Emitter	Sensor				
TD2601	25	50	100	85	5000	110	150	125
TD2611	25	50	100	85	5000	110	150	125
TD2630	25	50	100	85	5000	110	150	125
TD2631	25	50	100	85	5000	110	150	125
TD2730	25	60	100	100	5000	110	150	125
TD2731	25	60	100	100	5000	110	150	125
TD3010	60	100	100	300	5000	110	150	125
TD3011	60	100	100	300	5000	110	150	125
TD3012	60	100	100	300	5000	110	150	125
TD3021	60	100	100	300	5000	110	150	125
TD3022	60	100	100	300	5000	110	150	125
TD3023	60	100	100	300	5000	110	150	125
TD3031	60	100	100	300	5000	110	150	125
TD3032	60	100	100	300	5000	110	150	125
TD3033	60	100	100	300	5000	110	150	125
TD3041	60	100	100	300	5000	110	150	125
TD3042	60	100	100	300	5000	110	150	125
TD3043	60	100	100	300	5000	110	150	125
TD3051	60	100	100	300	5000	110	150	125
TD3052	60	100	100	300	5000	110	150	125
TD3053	60	100	100	300	5000	110	150	125
TD3061	60	100	100	300	5000	110	150	125
TD3062	60	100	100	300	5000	110	150	125
TD3063	60	100	100	300	5000	110	150	125
TD3071	60	100	100	300	5000	110	150	125
TD3072	60	100	100	300	5000	110	150	125
TD3073	60	100	100	300	5000	110	150	125
TD3081	60	100	100	300	5000	110	150	125
TD3082	60	100	100	300	5000	110	150	125
TD3083	60	100	100	300	5000	110	150	125
TD3010-4L	60	100	100	300	5000	110	150	125
TD3011-4L	60	100	100	300	5000	110	150	125
TD3012-4L	60	100	100	300	5000	110	150	125
TD3021-4L	60	100	100	300	5000	110	150	125
TD3022-4L	60	100	100	300	5000	110	150	125
TD3023-4L	60	100	100	300	5000	110	150	125
TD3031-4L	60	100	100	300	5000	110	150	125
TD3032-4L	60	100	100	300	5000	110	150	125
TD3033-4L	60	100	100	300	5000	110	150	125
TD3051-4L	60	100	100	300	5000	110	150	125
TD3052-4L	60	100	100	300	5000	110	150	125
TD3053-4L	60	100	100	300	5000	110	150	125
TD3071-4L	60	100	100	300	5000	110	150	125
TD3072-4L	60	100	100	300	5000	110	150	125
TD3073-4L	60	100	100	300	5000	110	150	125
TD3031-4L	60	100	100	300	5000	110	150	125
TD3032-4L	60	100	100	300	5000	110	150	125
TD3033-4L	60	100	100	300	5000	110	150	125
TD3041-4L	60	100	100	300	5000	110	150	125
TD3042-4L	60	100	100	300	5000	110	150	125
TD3043-4L	60	100	100	300	5000	110	150	125
TD3061-4L	60	100	100	300	5000	110	150	125
TD3062-4L	60	100	100	300	5000	110	150	125
TD3063-4L	60	100	100	300	5000	110	150	125
TD3081-4L	60	100	100	300	5000	110	150	125
TD3082-4L	60	100	100	300	5000	110	150	125
TD3083-4L	60	100	100	300	5000	110	150	125

MAXIMUM RATINGS PER CHANNEL (at 25°C ambient) (Ⓢ):

Model	Current (mA)		Power (mW)		Isolation Voltage at 60 sec [Vrms]	Max Operating Temp(°C)	Max Storage Temp(°C)	Max Junction Temp(°C)
	Emitter	Sensor	Emitter	Sensor				
*TD3120	25	500	100	250	5000	110	150	125
*TD3120L	25	500	100	250	5000	110	150	125
*TD3120R	25	500	100	250	5000	110	150	125
*TD3150	25	500	100	250	5000	110	150	125
*TD3150L	25	500	100	250	5000	110	150	125
*TD3150R	25	500	100	250	5000	110	150	125
TD3545	±60	80	100	150	5000	110	150	125
TD4502	25	50	100	100	5000	110	150	125
TD4503	25	50	100	100	5000	110	150	125
TD4504	25	50	100	100	5000	110	150	125
TD7840	25	60	100	100	5000	110	150	125
TD8145	60	80	100	150	5000	110	150	125
TDL351	60	50	100	150	5000	110	150	125
TDL352	60	150	100	150	5000	110	150	125
TDL354	60	50	100	150	5000	110	150	125
TDL355	60	80	100	150	5000	110	150	125
TDL356L	60	50	100	150	5000	110	150	125
TDL358	60	50	100	150	5000	110	150	125
TDL359	60	50	100	150	5000	110	150	125
TDL501	25	50	100	100	5000	110	150	125
TDL601	25	50	100	85	5000	110	150	125
TDL701	25	60	100	100	5000	110	150	125
TDL3010	60	100	100	300	5000	110	150	125
TDL3011	60	100	100	300	5000	110	150	125
TDL3012	60	100	100	300	5000	110	150	125
TDL3021	60	100	100	300	5000	110	150	125
TDL3022	60	100	100	300	5000	110	150	125
TDL3023	60	100	100	300	5000	110	150	125
TDL3031	60	100	100	300	5000	110	150	125
TDL3032	60	100	100	300	5000	110	150	125
TDL3033	60	100	100	300	5000	110	150	125
TDL3041	60	100	100	300	5000	110	150	125
TDL3042	60	100	100	300	5000	110	150	125
TDL3043	60	100	100	300	5000	110	150	125
TDL3051	60	100	100	300	5000	110	150	125
TDL3052	60	100	100	300	5000	110	150	125
TDL3053	60	100	100	300	5000	110	150	125
TDL3061	60	100	100	300	5000	110	150	125
TDL3062	60	100	100	300	5000	110	150	125
TDL3063	60	100	100	300	5000	110	150	125
TDL3071	60	100	100	300	5000	110	150	125
TDL3072	60	100	100	300	5000	110	150	125
TDL7073	60	100	100	300	5000	110	150	125
TDL3081	60	100	100	300	5000	110	150	125
TDL3082	60	100	100	300	5000	110	150	125
TDL3083	60	100	100	300	5000	110	150	125
TDL3545	60	80	100	150	5000	110	150	125
TDLR210	60	130	100	500	5000	110	150	125
TDLR211	60	1000	100	500	5000	110	150	125
TDLR212	60	550	100	500	5000	110	150	125
TDLR213	60	200	100	500	5000	110	150	125
TDLR214	60	120	100	500	5000	110	150	125
TDLR215	60	320	100	500	5000	110	150	125
TDLR216	60	50	100	500	5000	110	150	125
TDLR217	60	250	100	500	5000	110	150	125
TDLR218	60	20	100	500	5000	110	150	125
TDLR219	60	30	100	500	5000	110	150	125

and Report

MAXIMUM RATINGS PER CHANNEL (at 25°C ambient) (Ⓢ):

Model	Current (mA)		Power (mW)		Isolation Voltage at 60 sec [Vrms]	Max Operating Temp(°C)	Max Storage Temp(°C)	Max Junction Temp(°C)
	Emitter	Sensor	Emitter	Sensor				
TDLR410	60	130	100	500	5000	110	150	125
TDLR411	60	1000	100	500	5000	110	150	125
TDLR412	60	550	100	500	5000	110	150	125
TDLR413	60	200	100	500	5000	110	150	125
TDLR414	60	120	100	500	5000	110	150	125
TDLR415	60	320	100	500	5000	110	150	125
TDLR416	60	50	100	500	5000	110	150	125
TDLR417	60	250	100	500	5000	110	150	125
TDLR418	60	20	100	500	5000	110	150	125
TDLR419	60	30	100	500	5000	110	150	125
TDM501	25	50	100	100	5000	110	150	125
TDM501R	25	50	100	100	5000	110	150	125
TDM601	25	50	100	85	5000	110	150	125
TDM601R	25	50	100	85	5000	110	150	125
TDM701	25	60	100	100	5000	110	150	125
TDM3010	60	100	100	300	5000	110	150	125
TDM3011	60	100	100	300	5000	110	150	125
TDM3012	60	100	100	300	5000	110	150	125
TDM3021	60	100	100	300	5000	110	150	125
TDM3022	60	100	100	300	5000	110	150	125
TDM3023	60	100	100	300	5000	110	150	125
TDM3031	60	100	100	300	5000	110	150	125
TDM3032	60	100	100	300	5000	110	150	125
TDM3033	60	100	100	300	5000	110	150	125
TDM3051	60	100	100	300	5000	110	150	125
TDM3052	60	100	100	300	5000	110	150	125
TDM3053	60	100	100	300	5000	110	150	125
TDM3071	60	100	100	300	5000	110	150	125
TDM3072	60	100	100	300	5000	110	150	125
TDM3073	60	100	100	300	5000	110	150	125
TDM3031	60	100	100	300	5000	110	150	125
TDM3032	60	100	100	300	5000	110	150	125
TDM3033	60	100	100	300	5000	110	150	125
TDM3041	60	100	100	300	5000	110	150	125
TDM3042	60	100	100	300	5000	110	150	125
TDM3043	60	100	100	300	5000	110	150	125
TDM3061	60	100	100	300	5000	110	150	125
TDM3062	60	100	100	300	5000	110	150	125
TDM3063	60	100	100	300	5000	110	150	125
TDM3081	60	100	100	300	5000	110	150	125
TDM3082	60	100	100	300	5000	110	150	125
TDM3083	60	100	100	300	5000	110	150	125
TDR210-4L	60	130	100	500	5000	110	150	125
TDR211-4L	60	1000	100	500	5000	110	150	125
TDR212-4L	60	550	100	500	5000	110	150	125
TDR213-4L	60	200	100	500	5000	110	150	125
TDR214-4L	60	120	100	500	5000	110	150	125
TDR215-4L	60	320	100	500	5000	110	150	125
TDR216-4L	60	50	100	500	5000	110	150	125
TDR217-4L	60	250	100	500	5000	110	150	125
TDR218-4L	60	20	100	500	5000	110	150	125
TDR219-4L	60	30	100	500	5000	110	150	125
TDR410-4L	60	130	100	500	5000	110	150	125
TDR411-4L	60	1000	100	500	5000	110	150	125
TDR412-4L	60	550	100	500	5000	110	150	125
TDR413-4L	60	200	100	500	5000	110	150	125
TDR414-4L	60	120	100	500	5000	110	150	125

MAXIMUM RATINGS PER CHANNEL (at 25°C ambient) (#):

Model	Current (mA)		Power (mW)		Isolation Voltage at 60 sec [Vrms]	Max Operating Temp (°C)	Max Storage Temp (°C)	Max Junction Temp (°C)
	Emitter	Sensor	Emitter	Sensor				
TDR415-4L	60	320	100	500	5000	110	150	125
TDR416-4L	60	50	100	500	5000	110	150	125
TDR417-4L	60	250	100	500	5000	110	150	125
TDR418-4L	60	20	100	500	5000	110	150	125
TDR419-4L	60	30	100	500	5000	110	150	125
TDR210-6L	60	130	100	500	5000	110	150	125
TDR211-6L	60	1000	100	500	5000	110	150	125
TDR212-6L	60	550	100	500	5000	110	150	125
TDR213-6L	60	200	100	500	5000	110	150	125
TDR214-6L	60	120	100	500	5000	110	150	125
TDR215-6L	60	320	100	500	5000	110	150	125
TDR216-6L	60	50	100	500	5000	110	150	125
TDR217-6L	60	250	100	500	5000	110	150	125
TDR218-6L	60	20	100	500	5000	110	150	125
TDR219-6L	60	30	100	500	5000	110	150	125
TDR410-6L	60	130	100	500	5000	110	150	125
TDR411-6L	60	1000	100	500	5000	110	150	125
TDR412-6L	60	550	100	500	5000	110	150	125
TDR413-6L	60	200	100	500	5000	110	150	125
TDR414-6L	60	120	100	500	5000	110	150	125
TDR415-6L	60	320	100	500	5000	110	150	125
TDR416-6L	60	50	100	500	5000	110	150	125
TDR417-6L	60	250	100	500	5000	110	150	125
TDR418-6L	60	20	100	500	5000	110	150	125
TDR419-6L	60	30	100	500	5000	110	150	125
TDR210-8L	60	130	100	800	5000	110	150	125
*TDR211-8L	60	500	100	800	5000	110	150	125
*TDR212-8L	60	500	100	800	5000	110	150	125
TDR213-8L	60	200	100	800	5000	110	150	125
TDR214-8L	60	120	100	800	5000	110	150	125
TDR215-8L	60	320	100	800	5000	110	150	125
TDR216-8L	60	50	100	800	5000	110	150	125
TDR217-8L	60	250	100	800	5000	110	150	125
TDR218-8L	60	20	100	800	5000	110	150	125
TDR219-8L	60	30	100	800	5000	110	150	125
TDR410-8L	60	130	100	800	5000	110	150	125
*TDR411-8L	60	500	100	800	5000	110	150	125
*TDR412-8L	60	500	100	800	5000	110	150	125
TDR413-8L	60	200	100	800	5000	110	150	125
TDR414-8L	60	120	100	800	5000	110	150	125
TDR415-8L	60	320	100	800	5000	110	150	125
TDR416-8L	60	50	100	800	5000	110	150	125
TDR417-8L	60	250	100	800	5000	110	150	125
TDR418-8L	60	20	100	800	5000	110	150	125
TDR419-8L	60	30	100	800	5000	110	150	125
TDR0213	60	1200	100	2000	5000	110	150	125
TDR0223	60	1200	100	2000	5000	110	150	125
TDR1213	60	1200	100	2000	5000	110	150	125
TDR1223	60	1200	100	2000	5000	110	150	125
TDR2213	60	1200	100	2000	5000	110	150	125
TDR2223	60	1200	100	2000	5000	110	150	125
TDR3213	60	1200	100	2000	5000	110	150	125
TDR3223	60	1200	100	2000	5000	110	150	125

(#) - Pulse rating

(\$) - For ambient temperatures higher than 25°C and up to Tmoa, refer to manufacturer's specifications and/or thermal derating curve data for complete electrical ratings.

ENGINEERING CONSIDERATIONS (Not For Field Representative):

Use - For use only in complete equipment where the acceptability of the combination is determined by UL LLC.

USR indicates this product was investigated under the UL Standard for Safety for Optical Isolators, UL 1577, Fifth Edition.

CNR indicates this product was investigated under the Canadian Certification Notice, CSA Component Acceptance Service No. 5A.

Conditions of Acceptability - Each device shall be reviewed with respect to the following conditions of acceptability:

1. The capability of the device to control a load has not been investigated.
2. These devices should be installed in a suitable end product enclosure.
3. The maximum operating (ambient) temperature, as noted in the rating table, shall not be exceeded.
4. For single protection devices, the insulation to the case has not been evaluated. For double protection devices, the insulation to the case has been evaluated to the isolation voltage specified in the ratings table.
5. The maximum case temperature shall not be exceeded, as noted in the ratings table.

CONSTRUCTION DETAILS:

The product shall be constructed in accordance with the following descriptions. All dimensions are approximate, unless specified as "max" or "min".

Marking - The company name or trademark, and model number shall appear on the device or the smallest shipping carton.

Specification Sheet - A specification sheet shall be available at the manufacturing facility and shall contain the following information in tabular or graphic format:

1. Maximum continuous power, a current and a voltage rating for both the encoder and the decoder.
2. A dielectric insulation-voltage rating between input and output terminals shall be specified in volts rms or dc, as applicable.
3. The maximum operating temperature of the device.
4. Derating specifications related to ambient temperatures.

DIP4 MODEL TD810

General - Model TD810 represents all models detailed below.

1. Input - LED
2. Output - See below table for output circuit type.

Optical Isolator Model	Output Circuit Type
TD810, TD814, TD815, TD816, TD816L, TD817, TD818, TD819, TD851, TD852, TD8145	Bipolar transistor
TD3010-4L, TD3011-4L, TD3012-4L, TD3021-4L, TD3022-4L, TD3023-4L, TD3031-4L, TD3032-4L, TD3033-4L, TD3040-4L, TD3042-4L, TD3043-4L, TD3051-4L, TD3052-4L, TD3053-4L, TD3061-4L, TD3062-4L, TD3063-4L, TD3071-4L, TD3072-4L, TD3073-4L, TD3081-4L, TD3082-4L, TD3083-4L,	Triac
TDR210-4L, TDR211-4L, TDR212-4L, TDR213-4L, TDR214-4L, TDR215-4L, TDR216-4L, TDR217-4L, TDR218-4L, TDR219-4L, TDR410-4L, TDR411-4L, TDR412-4L, TDR413-4L, TDR414-4L, TDR415-4L, TDR416-4L, TDR417-4L, TDR418-4L, TDR419-4L	FET

3. Lead Frame and Bond Wire - Metal employed for current carrying parts shall be of stainless steel, plated steel, silver, gold, copper, nickel, aluminum, an alloy of the same, or an equivalent material.
4. Outer Enclosure - Epoxy, Type CV1585 manufactured by Panasonic. Minimum 0.425 mm thick. Molded using an injection, compression, pultrusion, or transfer and match-metal die molding process.

Alternate - Same as above, except Type EC-20 manufactured by Sumikon.

Alternate - Same as above, except Type TH-2200 manufactured by Beijing Sino-Tech Electronic Materials Co. Ltd.

Alternate - Same as above, except Type TH-200 manufactured by Beijing Sino-Tech Electronic Materials Co. Ltd.

5. Window Insulation - Epoxy mold compound, Type CV1400H manufactured by Panasonic, minimum 0.42 mm through insulation thickness.

Alternate - Same as above, except Type EC-15L manufactured by Sumikon.

Alternate - Same as above, except Type TH-2100 manufactured by Beijing Sino-Tech Electronic Materials Co. Ltd.

6. Junction Coating - Silicone, Type JCR6101UP manufactured by Dow Corning.

LSOP4/LSOP5 MODEL TDL352

General - Model TDL352 represents all models detailed below.

1. Input - LED
2. Output - See below table for output circuit type.

Optical Isolator Model	Output Circuit Type
*TD1010, TD1011, TD1012, TD1013, TD1014, TD1015, TD1016, TD1017, TD1018, TD1019, TD1110, TD1111, TD1112, TD1113, TD1114, TD1115, TD1116, TD1117, TD1118, TD1119, TDL351, TDL352, TDL354, TDL355, TDL356L, TDL358, TDL359, TDL501, TDL601, TDL701, TDL3545	Bipolar transistor
TDL3010, TDL3011, TDL3012, TDL3021, TDL3022, TDL3023, TDL3031, TDL3032, TDL3033, TDL3041, TDL3042, TDL3043, TDL3051, TDL3052, TDL3053, TDL3061, TDL3062, TDL3063, TDL3071, TDL3072, TDL3073, TDL3081, TDL3082, TDL3083	Triac
TDLR210, TDLR211, TDLR212, TDLR213, TDLR214, TDLR215, TDLR216, TDLR217, TDLR218, TDLR219, TDLR410, TDLR411, TDLR412, TDLR413, TDLR414, TDLR415, TDLR416, TDLR417, TDLR418, TDLR419	FET

3. Lead Frame and Bond Wire - Metal employed for current carrying parts shall be of stainless steel, plated steel, silver, gold, copper, nickel, aluminum, an alloy of the same, or an equivalent material.
4. Outer Enclosure - Epoxy, Type CV1585 manufactured by Panasonic. Minimum 0.25 mm thick. Molded using an injection, compression, pultrusion, or transfer and match-metal die molding process.

Alternate - Same as above, except Type EC-20 manufactured by Sumikon.

Alternate - Same as above, except Type TH-2200 manufactured by Beijing Sino-Tech Electronic Materials Co. Ltd.

Alternate - Same as above, except Type TH-200 manufactured by Beijing Sino-Tech Electronic Materials Co. Ltd.
5. Window Insulation - Epoxy mold compound, Type CV1400H manufactured by Panasonic, minimum 0.42 mm through insulation thickness.

Alternate - Same as above, except Type EC-15L manufactured by Sumikon.

Alternate - Same as above, except Type TH-2100 manufactured by Beijing Sino-Tech Electronic Materials Co. Ltd.
6. Junction Coating - Silicone, Type JCR6101UP manufactured by Dow Corning.

DIP6 MODEL H11G1

General - Model H11G1 represents all models detailed below.

1. Input - LED
2. Output - See below table for output circuit type.

Optical Isolator Model	Output Circuit Type
4N25, 4N26, 4N27, 4N28, 4N29, 4N30, 4N31, 4N32, 4N33, 4N35, 4N36, 4N37, 4N38, CNY17-0, CNY17-1, CNY17-2, CNY17-3, CNY17-4, CNY17-5, CNY17-6, CNY17-7, CNY17-8, CNY17-9, CN17F-0, CN17F-1, CN17F-2, CN17F-3, CN17F-4, CN17F-5, CN17F-6, CN17F-7, CN17F-8, CN17F-9, H11AAX, H11AG1, H11B0, H11B1, H11B2, H11B3, H11B4, H11B5, H11B6, H11B7, H11B8, H11B9, H11DX, H11G0, H11G1, H11G2, H11G3, H11G4, H11G5, H11G6, H11G7, H11G8, H11G9	Bipolar transistor
TD3010, TD3011, TD3012, TD3021, TD3022, TD3023, TD3031, TD3032, TD3033, TD3041, TD3042, TD3043, TD3051, TD3052, TD3053, TD3061, TD3062, TD3063, TD3071, TD3072, TD3073, TD3081, TD3082, TD3083	Triac
TDR210-6L, TDR211-6L, TDR212-6L, TDR213-6L, TDR214-6L, TDR215-6L, TDR216-6L, TDR217-6L, TDR218-6L, TDR219-6L, TDR410-6L, TDR411-6L, TDR412-6L, TDR413-6L, TDR414-6L, TDR415-6L, TDR416-6L, TDR417-6L, TDR418-6L, TDR419-6L	FET

3. Lead Frame and Bond Wire - Metal employed for current carrying parts shall be of stainless steel, plated steel, silver, gold, copper, nickel, aluminum, an alloy of the same, or an equivalent material.
4. Outer Enclosure - Epoxy, Type CV1585 manufactured by Panasonic. Minimum 0.475 mm thick. Molded using an injection, compression, pultrusion, or transfer and match-metal die molding process.

Alternate - Same as above, except Type EC-20 manufactured by Sumikon.

Alternate - Same as above, except Type TH-2200 manufactured by Beijing Sino-Tech Electronic Materials Co. Ltd.

Alternate - Same as above, except Type TH-200 manufactured by Beijing Sino-Tech Electronic Materials Co. Ltd.

5. Window Insulation - Epoxy mold compound, Type CV1400H manufactured by Panasonic, minimum 0.42 mm through insulation thickness.

Alternate - Same as above, except Type EC-15L manufactured by Sumikon.

Alternate - Same as above, except Type TH-2100 manufactured by Beijing Sino-Tech Electronic Materials Co. Ltd.

6. Junction Coating - Silicone, Type JCR6101UP manufactured by Dow Corning.

DIP7/DIP8 MODEL 6N137

General - Model 6N137 represents all models detailed below.

1. Input - LED
2. Output - See below table for output circuit type.

Optical Isolator Model	Output Circuit Type
6N135, 6N136, 6N137, 6N138, 6N139, TD824, TD825, TD826, TD827, TD8D52, TD2530, TD2531, TD2600, TD2601, TD2611, TD2630, TD2631, TD2730, TD2731, TD4502, TD4503, TD4504	Bipolar transistor
TDR0213, TDR0223, TDR1213, TDR1223, TDR2213, TDR2223, TDR3213, TDR3223	Triac
TD3120, TD3120L, TD3120R, TD3150, TD3150L, TD3150R, TD7840, TDR210-8L, TDR211-8L, TDR212-8L, TDR213-8L, TDR214-8L, TDR215-8L, TDR216-8L, TDR217-8L, TDR218-8L, TDR219-8L, TDR410-8L, TDR411-8L, TDR412-8L, TDR413-8L, TDR414-8L, TDR415-8L, TDR416-8L, TDR417-8L, TDR418-8L, TDR419-8L	FET

3. Lead Frame and Bond Wire - Metal employed for current carrying parts shall be of stainless steel, plated steel, silver, gold, copper, nickel, aluminum, an alloy of the same, or an equivalent material.
4. Outer Enclosure - Epoxy, Type CV3400 manufactured by Panasonic. Minimum 0.475 mm thick. Molded using an injection, compression, pultrusion, or transfer and match-metal die molding process.

Alternate - Same as above, except Type CV4180 manufactured by Panasonic.

Alternate - Same as above, except Type EME-1100D manufactured by Sumikon.

Alternate - Same as above, except Type EC-E110G manufactured by Sumikon.

Alternate - Same as above, except Type TH-2200 manufactured by Beijing Sino-Tech Electronic Materials Co. Ltd.

Alternate - Same as above, except Type TH-200 manufactured by Beijing Sino-Tech Electronic Materials Co. Ltd.
5. Window Insulation - Epoxy mold compound, Type CV1400H manufactured by Panasonic, minimum 0.5 mm through insulation thickness.

Alternate - Same as above, except Type EC-15L manufactured by Sumikon.

Alternate - Same as above, except Type TH-2100 manufactured by Beijing Sino-Tech Electronic Materials Co. Ltd.
6. Junction Coating - Silicone, Type JCR6101UP manufactured by Dow Corning.

SOP4/SOP5 MODEL TD152

General - Model TD152 represents all models detailed below.

1. Input - LED
2. Output - See below table for output circuit type.

Optical Isolator Model	Output Circuit Type
TD351, TD352, TD354, TD355, TD356, TD356L, TD357, TD358, TD359, TD3545, TDM501, TDM501R, TDM601, TDM601R, TDM701	Bipolar transistor
TDM3010, TDM3011, TDM3012, TDM3021, TDM3022, TDM3023, TDM3031, TDM3032, TDM3033, TDM3041, TDM3042, TDM3043, TDM3051, TDM3052, TDM3053, TDM3061, TDM3062, TDM3063, TDM3071, TDM3072, TDM3073, TDM3081, TDM3082, TDM3083	Triac
TD152, TD155E, TD155ER	FET

3. Lead Frame and Bond Wire - Metal employed for current carrying parts shall be of stainless steel, plated steel, silver, gold, copper, nickel, aluminum, an alloy of the same, or an equivalent material.
4. Outer Enclosure - Epoxy, Type CV1585 manufactured by Panasonic. Minimum 0.25 mm thick. Molded using an injection, compression, pultrusion, or transfer and match-metal die molding process.

Alternate - Same as above, except Type EC-20 manufactured by Sumikon.

Alternate - Same as above, except Type TH-2200 manufactured by Beijing Sino-Tech Electronic Materials Co. Ltd.

Alternate - Same as above, except Type TH-200 manufactured by Beijing Sino-Tech Electronic Materials Co. Ltd.

5. Window Insulation - Epoxy mold compound, Type CV1400H manufactured by Panasonic, minimum 0.42 mm through insulation thickness.

Alternate - Same as above, except Type EC-15L manufactured by Sumikon.

Alternate - Same as above, except Type TH-2100 manufactured by Beijing Sino-Tech Electronic Materials Co. Ltd.

6. Junction Coating - Silicone, Type JCR6101UP manufactured by Dow Corning.

TEST RECORD NO. 1

SAMPLES:

Samples of Double Protection, Optical Isolator, Models TDR211-8L, TDLR211, TDL3063, H11G1, TDL352, 6N137, TDR3213, and TDL1019, as indicated below and constructed as described herein, was submitted by the manufacturer for examination and test.

Testing performed on model TDR211-8L, TDLR211, TDL3063, H11G1, TDL352, 6N137, TDR3213, and TDL1019 was considered to represent DIP4 Models TD810, TD814, TD815, TD816, TD817, TD818, TD819, TD816L, TD851, TD852, TD1010, TD1011, TD1012, TD1013, TD1014, TD1015, TD1016, TD1017, TD1018, TD1019, TD1110, TD1111, TD1112, TD1113, TD1114, TD1115, TD1116, TD1117, TD1118, TD1119, TD3010-4L, TD3011-4L, TD3012-4L, TD3021-4L, TD3022-4L, TD3023-4L, TD3031-4L, TD3032-4L, TD3033-4L, TD3040-4L, TD3042-4L, TD3043-4L, TD3051-4L, TD3052-4L, TD3053-4L, TD3061-4L, TD3062-4L, TD3063-4L, TD3071-4L, TD3072-4L, TD3073-4L, TD3081-4L, TD3082-4L, TD3083-4L, TD8145, TDR210-4L, TDR211-4L, TDR212-4L, TDR213-4L, TDR214-4L, TDR215-4L, TDR216-4L, TDR217-4L, TDR218-4L, TDR219-4L, TDR410-4L, TDR411-4L, TDR412-4L, TDR413-4L, TDR414-4L, TDR415-4L, TDR416-4L, TDR417-4L, TDR418-4L, and TDR419-4L; LSOP4/LSOP5 Models TDL351, TDL354, TDL355, TDL356L, TDL358, TDL359, TDL501, TDL601, TDL701, TDL3010, TDL3011, TDL3012, TDL3021, TDL3022, TDL3023, TDL3031, TDL3032, TDL3033, TDL3041, TDL3042, TDL3043, TDL3051, TDL3052, TDL3053, TDL3061, TDL3062, TDL3071, TDL3072, TDL3073, TDL3081, TDL3082, TDL3083, TDL3545, TDLR210, TDLR212, TDLR213, TDLR214, TDLR215, TDLR216, TDLR217, TDLR218, TDLR219, TDLR410, TDLR411, TDLR412, TDLR413, TDLR414, TDLR415, TDLR416, TDLR417, TDLR418, and TDLR419; DIP6 Models 4N25, 4N26, 4N27, 4N28, 4N29, 4N30, 4N31, 4N32, 4N33, 4N35, 4N36, 4N37, 4N38, CNY17-0, CNY17-1, CNY17-2, CNY17-3, CNY17-4, CNY17-5, CNY17-6, CNY17-7, CNY17-8, CNY17-9, CN17F-0, CN17F-1, CN17F-2, CN17F-3, CN17F-4, CN17F-5, CN17F-6, CN17F-7, CN17F-8, CN17F-9, H11AAX, H11AG1, H11B0, H11B1, H11B2, H11B3, H11B4, H11B5, H11B6, H11B7, H11B8, H11B9, H11DX, H11G0, H11G2, H11G3, H11G4, H11G5, H11G6, H11G7, H11G8, H11G9, H11L1, H11L2, H11L3, TD3010, TD3011, TD3012, TD3021, TD3022, TD3023, TD3031, TD3032, TD3033, TD3041, TD3042, TD3043, TD3051, TD3052, TD3053, TD3061, TD3062, TD3063, TD3071, TD3072, TD3073, TD3081, TD3082, TD3083, TDR210-6L, TDR211-6L, TDR212-6L, TDR213-6L, TDR214-6L, TDR215-6L, TDR216-6L, TDR217-6L, TDR218-6L, TDR219-6L, TDR410-6L, TDR411-6L, TDR412-6L, TDR413-6L, TDR414-6L, TDR415-6L, TDR416-6L, TDR417-6L, TDR418-6L, and TDR419-6L; DIP7/DIP8 Models 6N135, 6N136, 6N138, 6N139, TD824, TD825, TD826, TD827, TD8D52, TDR0213, TDR0223, TDR1213, TDR1223, TDR2213, TDR2223, TD2530, TD2531, TD2600, TD2601, TD2611, TD2630, TD2631, TD2730, TD2731, TD3120, TD3120L, TD3120R, TD3150, TD3150L, TD3150R, TDR3223, TD4502, TD4503, TD4504, TD7840, TDR210-8L, TDR212-8L, TDR213-8L, TDR214-8L, TDR215-8L, TDR216-8L, TDR217-8L, TDR218-8L, TDR219-8L, TDR410-8L, TDR411-8L, TDR412-8L, TDR413-8L, TDR414-8L, TDR415-8L, TDR416-8L, TDR417-8L, TDR418-8L, and TDR419-8L; SOP4/SOP5 Models TD152, TD155E, TD155ER, TD351, TD352, TD354, TD355, TD356, TD356L, TD357, TD358, TD359, TD3545, TDM501, TDM501R, TDM601, TDM601R, TDM701, TDM3010, TDM3011, TDM3012, TDM3021, TDM3022, TDM3023, TDM3031, TDM3032, TDM3033, TDM3041, TDM3042, TDM3043, TDM3051, TDM3052, TDM3053, TDM3061, TDM3062, TDM3063, TDM3071, TDM3072, TDM3073, TDM3081, TDM3082, and TDM3083.

MAXIMUM RATINGS PER CHANNEL (at 25°C ambient) (Ⓢ):

Model	Current (mA)		Power (mW)		Isolation Voltage (@ 60 sec)	Max Operating Ambient Temp (°C)	Max Junction Temp (°C)	Max Storage Temp (°C)
	Emitter (Side 1)	Sesnor (Side 2)	Emitter (Side 1)	Sesnor (Side 2)				
TDR211-8L	60	1000	100	800	5000	110	125	150
TDLR211	60	1000	100	500	5000	110	125	150
TDL3063	60	100	100	300	5000	110	125	150
H11G1	60	150	120	300	5000	110	125	150
TDL352	60	150	100	150	5000	110	125	150
6N137	25	50	100	85	5000	110	125	150
TDR3213	60	1200	100	2000	5000	110	125	150
TD1019	60	50	100	150	5000	110	125	150

GENERAL:

Test results relate only to the items tested.

* The following tests were conducted.

Test:	Standard:
DVWT	UL 1577, Sec. 11
Overload	UL 1577, Sec. 12
LTA	UL 1577, Sec. 13
Discharge	UL 1577, Sec. 15
Optical Isolator Life	UL 1577, Sec. 16

Model Tested	Outer Enclosure	Window Insulation	Junction Coating	Tests	Representative of the following construction types (as applicable)
TDL352	CV1585	CV1400H	JCR6101UP	DVWT, LTA, Discharge, Life	0.42 mm minimum through insulation thickness, 0.25 mm minimum outer mold thickness, 150°C max storage temp, 125°C max junction temp, 5000 Vac isolation.
TD1019	EC-20	EC-15L	JCR6101UP	DVWT, LTA, Discharge, Life	0.42 mm minimum through insulation thickness, 0.25 mm minimum outer mold thickness, 150°C max storage temp, 125°C max junction temp, 5000 Vac isolation.

TDR211-8L	CV4180, EME-1100D	CV1400H, EC-15L	JCR6101UP	Overload	FET output circuit, 0.5 mm minimum through insulation thickness,100/800 mW emitter/sensor power,5000 Vac isolation.
TDLR211	CV1585, EC-20	CV1400H, EC-15L	JCR6101UP	Overload	FET output circuit, 0.42 mm minimum through insulation thickness,100/500 mW emitter/sensor power,5000 Vac isolation.
TDL3063	CV1585, EC-20	CV1400H, EC-15L	JCR6101UP	Overload	Triac output circuit, 0.42 mm minimum through insulation thickness,100/300 mW emitter/sensor power,5000 Vac isolation.
H11G1	CV1585, EC-20	CV1400H, EC-15L	JCR6101UP	Overload	Bipolar output circuit, 0.42 mm minimum through insulation thickness,120/300 mW emitter/sensor power,5000 Vac isolation.
TDR3213	CV4180, EME-1100	CV1400H, EC-15L	JCR6101UP	Overload	Triac output circuit, 0.5 mm minimum through insulation thickness,100/2000 mW emitter/sensor power,5000 Vac isolation.
6N137	CV3400, CV4180, EME- 1100D, EME-E110G	CV1400H, EC-15L	JCR6101UP	LTA, Discharge, Life	0.5 mm minimum through insulation thickness, 0.475 mm minimum outer mold thickness, 110°C max operating temp, 150°C max storage temp, 125°C max junction temp, 5000 Vac isolation.

The model tested is representative of all models with similar construction types.

Test Record Summary:

*The results of this investigation indicate that the products evaluated comply with the applicable requirements in Standard for Optical Isolators UL 1577, Fifth Edition, revised January 23, 2015, and, therefore, such products are judged eligible to bear UL's Mark as described on the Conclusion Page of this Report.

Revised:

TEST RECORD NO. 2

SAMPLES:

This investigation covers addition of alternate outer mold materials TH-2200 and TH-200; alternate inner mold material TH-2100 manufactured by Beijing Sino-Tech Electronic Materials Co. Ltd.

GENERAL:

Test results relate only to the items tested.

*The following tests were conducted.

Test:	Standard:
DVWT	UL 1577, Sec. 11
Overload	UL 1577, Sec. 12
LTA	UL 1577, Sec. 13
Discharge	UL 1577, Sec. 15
Optical Isolator Life	UL 1577, Sec. 16

Model Tested	Outer Enclosure	Window Insulation	Junction Coating	Tests	Representative of the following construction types (as applicable)
TDR411-8L	TH-2200	TH-2100	JCR6101UP	Overload	FET output circuit, 0.5 mm minimum through insulation thickness, 100/800 mW emitter/sensor power, 5000 Vac isolation.
TDLR411	TH-2200	TH-2100	JCR6101UP	Overload	FET output circuit, 0.42 mm minimum through insulation thickness, 100/500 mW emitter/sensor power, 5000 Vac isolation.
TDL3021	TH-2200	TH-2100	JCR6101UP	Overload	Triac output circuit, 0.42 mm minimum through insulation thickness, 100/300 mW emitter/sensor power, 5000 Vac isolation.
H11G1	TH-2200	TH-2100	JCR6101UP	Overload	Bipolar output circuit, 0.42 mm minimum through insulation thickness, 120/300 mW emitter/sensor power, 5000 Vac isolation.

Model Tested	Outer Enclosure	Window Insulation	Junction Coating	Tests	Representative of the following construction types (as applicable)
TD1018	TH-200	TH-2100	JCR6101UP	LTA, Discharge, Life	0.42 mm minimum through insulation thickness, 0.25 mm minimum outer mold thickness, 150°C max storage temp, 125°C max junction temp, 5000 Vac isolation.
TDR3213	TH-2200	TH-2100	JCR6101UP	Overload	Triac output circuit, 0.5 mm minimum through insulation thickness, 100/2000 mW emitter/sensor power, 5000 Vac isolation.
TD1018	TH-2200	TH-2100	JCR6101UP	DVWT, LTA, Discharge, Life	0.42 mm minimum through insulation thickness, 0.25 mm minimum outer mold thickness, 150°C max storage temp, 125°C max junction temp, 5000 Vac isolation.

The models tested are representative of all models with similar construction types.

Test Record Summary:

The results of this investigation indicate that the products evaluated comply with the applicable requirements in Standard for Optical Isolators UL 1577, Fifth Edition, revised January 23, 2015, and, therefore, such products are judged eligible to bear UL's Mark as described on the Conclusion Page of this Report.

Test Record by:

Jason Ferguson
Lead Project Engineer

Reviewed by:

Dean Baker
Lead Project Engineer

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TEST RECORD NO. 3

SAMPLES:

No testing was considered necessary to revise models TD1010, TD1011, TD1012, TD1013, TD1014, TD1015, TD1016, TD1017, TD1018, TD1019, TD1110, TD1111, TD1112, TD1113, TD1114, TD1115, TD1116, TD1117, TD1118, and TD1119 from DIP4 Series to LSOP4.LSOP5 Series description in the report.

Test Record Summary:

The results of this investigation indicate that the products evaluated comply with the applicable requirements in Standard for Optical Isolators UL 1577, Fifth Edition, revised January 23, 2015, and, therefore, such products are judged eligible to bear UL's Mark as described on the Conclusion Page of this Report.

Test Record by:	Reviewed by:
Jason Ferguson Lead Project Engineer	Dean Baker Lead Project Engineer

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TEST RECORD NO. 4

SAMPLES:

This investigation covers addition of Canadian approval to all models covered under the report except for the following: DIP4 Models TDR210-4L, TDR211-4L, TDR212-4L, TDR213-4L, TDR214-4L, TDR215-4L, TDR216-4L, TDR217-4L, TDR218-4L, TDR219-4L, TDR410-4L, TDR411-4L, TDR412-4L, TDR413-4L, TDR414-4L, TDR415-4L, TDR416-4L, TDR417-4L, TDR418-4L, and TDR419-4L; LSOP4/LSOP5 Models TDLR210, TDLR211, TDLR212, TDLR213, TDLR214, TDLR215, TDLR216, TDLR217, TDLR218, TDLR219, TDLR410, TDLR411, TDLR412, TDLR413, TDLR414, TDLR415, TDLR416, TDLR417, TDLR418, and TDLR419; DIP6 Models TDR210-6L, TDR211-6L, TDR212-6L, TDR213-6L, TDR214-6L, TDR215-6L, TDR216-6L, TDR217-6L, TDR218-6L, TDR219-6L, TDR410-6L, TDR411-6L, TDR412-6L, TDR413-6L, TDR414-6L, TDR415-6L, TDR416-6L, TDR417-6L, TDR418-6L, and TDR419-6L; DIP7/DIP8 Model TD7840; SOP4/SOP5 Models TD152, TD155E, and TD155ER. Based on the testing performed on model TDR211-8L, sensor current ratings were revised for models TD3120, TD3120L, TD3120R from 2500# mA to 500 mA; for models TD3150, TD3150L, TD3150R from 1000# mA to 500 mA; for models TDR211-8L and TDR411-8L from 1000 mA to 500 mA; and for models TDR212-8L and TDR412-8L from 550 mA to 500 mA. In addition the CNR standard reference was removed from TR#1 and TR#2 since it was included in error. Testing performed on models H11G1, TDR211-8L, TDR3213, and TDL3063 is representative of all models covered in the report.

GENERAL:

Test results relate only to the items tested.

A CRD is not considered necessary since CSA Component Acceptance Service No. 5A does not have any construction requirements.

The following tests were conducted.

Test:	Standard:
Maximum Dissipation Test	Component Acceptance Service No. 5A

Model Tested	Outer Enclosure	Window Insulation	Junction Coating	Tests	Representative of the following construction types (as applicable)
H11G1	CV3400	CV1400H, EC-15L, TH-2100	JCR6101UP	Maximum Dissipation	Bipolar output circuit, 0.42 minimum through insulation thickness, 60/150 mA emitter/sensor current, 110°C max operating temp, 125°C max junction temp, 150°C max storage temp, 5000 Vac isolation.
TDR211-8L	CV3400	CV1400H, EC-15L, TH-2100	JCR6101UP	Maximum Dissipation	FET output circuit, 0.5 minimum through insulation thickness, 60/500 mA emitter/sensor current, 110°C max operating temp, 125°C max junction temp, 150°C max storage temp, 5000 Vac isolation.

TDR3213	CV3400	CV1400H, EC-15L, TH-2100	JCR6101UP	Maximum Dissipation	Triac output circuit, 0.5 minimum through insulation thickness, 60/1200 mA emitter/sensor current, 110°C max operating temp, 125°C max junction temp, 150°C max storage temp, 5000 Vac isolation.
TDL3063	CV1585	CV1400H, EC-15L, TH-2100	JCR6101UP	Maximum Dissipation	Triac output circuit, 0.42 minimum through insulation thickness, 60/100 mA emitter/sensor current, 110°C max operating temp, 125°C max junction temp, 150°C max storage temp, 5000 Vac isolation.

The models tested are representative of all models with similar construction types.

Test Record Summary:

The results of this investigation indicate that the products evaluated comply with the applicable requirements in Canadian Component Acceptance Service Notice, CAN/CSA No. 5A, dated January 23, 1998, and, therefore, such products are judged eligible to bear UL's Mark as described on the Conclusion Page of this Report.

Test Record by:

Jason Ferguson
Lead Project Engineer

Reviewed by:

Dean Baker
Lead Project Engineer

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TEST RECORD NO. 5

SAMPLES:

No testing was considered necessary to add the statement "all models may be followed by additional letters and/or numbers" to all models in the report.

Test Record Summary:

The results of this investigation indicate that the products evaluated comply with the applicable requirements in Standard for Optical Isolators UL 1577, Fifth Edition, revised June 11, 2019, and the Canadian Component Acceptance Service Notice, CAN/CSA No. 5A, dated January 23, 1998 and, therefore, such products are judged eligible to bear UL's Mark as described on the Conclusion Page of this Report.

Test Record by:

Reviewed by:

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CONCLUSION

Samples of the components covered by this Report have been found to comply with the requirements covering the category and the components are found to comply with UL's applicable requirements. The description and test result in this Report are only applicable to the sample(s) investigated by UL and does not signify the product(s) described as being covered under UL's Follow-Up Service Program. When covered under UL's Follow-Up Service Program, the manufacturer is authorized to use the Recognized Marking on such products which comply with UL's Follow-Up Service Procedure and any other applicable requirements of UL LLC. The Recognized Component Mark of UL LLC on the product, or the Recognized Marking symbol on the product and the Recognized Component Mark on the smallest unit container in which the product is packaged, is the only method to identify products investigated by UL to published requirements and manufactured under UL's Recognition and Follow-Up Service.

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