

# **CERTIFICATE FI/41762**

Our Ref. HEL-CERT230801344-01



Product	Optocoupler
Туре	See pages 2-14, for details
Trademark	
Certificate Holder	Everlight Electronics Co., Ltd. 6-8, Zhonghua Road, Shulin, New Taipei City, 23860, Taiwan
Technical information	250Vrms
Other information	The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape.
The product is certified according to the following standard(s)	EN 60335-1:2012 + A11:2014 + A13:2017 + A1:2019 + A14:2019 + A2:2019 + A15:2021 EN 61347-1:2015 + A1:2021 EN 62368-1:2014 + A11:2017 EN IEC 62368-1:2020 + A11:2020
Validity	This certificate is valid until 01 September 2028 provided that the Conditions for FI certification are met. This certificate includes the right to use the FI mark under the condition that changes (if any) will be checked at SGS Fimko before the product is brought onto market and that the conditions for FI certification are met.
Date of issue	01 September 2023
	SGS Fimko Ltd
Signature	Mikko Välimäki Certification Manager

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**SGS Fimko Ltd** 

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Everlight Electronics Co., Ltd. 6-8, Zhonghua Road, Shulin, New Taipei City, 23860, Taiwan

Everlight Electronic (China) Co., Ltd. No. 2135 Zhong Shan North Road, Wujiang Economy Development, Zone (Yun Xi Area), Songling Town, Wujiang City, Suzhou, 215200, Jiangsu, China

The product has certificate P23226996/A1 issued by Nemko AS in accordance with the Nordic Certification Service system.

#### Model/Type:

EL817. /EL816. /EL819. /EL829. /EL826. /EL827. /EL717. /4N25. /4N26. /4N27. /4N28. /4N35. /4N36. /4N37. /4N38. /MCT2. /MCT2E. /MCT210. /CNY17-1. /CNY17-2. /CNY17-3. /CNY17-4. /MOC8111. /MOC8112. /MOC8113. /H11A1. /H11A2. /H11A3. /H11A4. /H11A5. /TIL111. /TIL117. /CNX35U.

Optocoupler. Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 110°C. Tested for 5000m.

6N135. /6N136. /6N137. /6N138. /6N139. /EL2502. /EL250L. /EL2503. /EL4502. /EL4503. /EL2530. /EL253L. /EL2531. /EL4534. /EL2730. /EL2731. /EL2601. /EL260L. /EL2611. /EL261A. /EL261N. /EL2630. /EL263L. /EL263A. /EL263N. /EL2631. /EL4661. /EL4504. High Speed Optocoupler. Minimum external creepage distance is measured to 8.0mm, minimum internal creepage distance is measured to 5.0mm and minimum distance through insulation is measured to 0.5mm.Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 100°C

Manufacturer

Manufacturing site

Additional information

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Business ID 0978538-5



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TCET111. /TCET120. /VO610A. /VO615A. /CNY17G. /CNY75. /CQY80. /K233. /TCDT110. /TCDT111. /TCDT112. /EL2501. /EL2561. /EL8171. /CNY171-1. /CNY171-2. /CNY171-3. /CNY171-4. /CNY17F1-1. /CNY17F1-2. /CNY17F1-3. /CNY17F1-4. /EL610. /EL817L. Optocoupler. Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 110°C. Tested for 5000m.

H11L3. / H11D1. / H11D2. / H11D3. / H11D4. / H11G1. / H11G2. / H11G3. /EL371. / EL725. / 4N50. / 4N51. / 4N52. / 4N53. / 4N54. / 4N55. / 4N56. /4N57. / 4N58. / 4N59. /EL852. /EL851.

Optocoupler. Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 5.5mm and minimum distance through insulation is measured to 0.5mm.Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 100°C. The symbol "X" in type denotes X = Part no. (0,1,2,3,4).

EX357NH. / EX3H7H. / EX3H7U. / EX3H4U. / EX354NU. / EX357NU. Optocoupler. Minimum external creepage distance is measured to 5.0mm, minimum internal creepage distance is measured to 4.0mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 125 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "X" may be L or V, and denotes different application. Maximum operating temperature: 125°C

#### EX101U.

Optocoupler. Minimum external creepage distance is measured to 8.1mm, minimum internal creepage distance is measured to 5.2mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 125 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 125°C. The symbol "X" may be L or V, and denotes different application.

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#### EV6150A. /EL6150A. /EL603A5. /EL606A3.

Solid State Relay. Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Maximum operating temperature: 125°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 125 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute.

#### EV101U.

Optocoupler. Minimum external creepage distance is measured to 8.1mm, minimum internal creepage distance is measured to 5.2mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 125 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 125°C

ELW3120. / ELW3140. / ELW3150. / ELW3180. / ELW3184. IGBT Gate Drive Optocoupler. Minimum external creepage distance is measured to 11.85mm, minimum internal creepage distance is measured to 7.72mm and minimum distance through insulation is measured to 0.9mm. Tested for reinforced insulation. Maximum operating temperature: 110°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute.

ELW137. / ELW139. / ELW2601. / ELW2611. / ELW136. / ELW135. /ELW4502. / ELW4503. / ELW138. / ELW260L. / ELW250L. / ELW4504. /ELW2200. / ELW2201. / ELW2202. / ELW2219. / ELW2211. / ELW2212.

High Speed Optocoupler. Minimum external creepage distance is measured to 11.85mm, minimum internal creepage distance is measured to 7.72mm and minimum distance through insulation is measured to 0.9mm. Tested for reinforced insulation. Maximum operating temperature: 100°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute.

Additional information

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### Additional information

ELT301X. / ELT302X. / ELT305X. / ELT303X. / ELT304X. / ELT306X. / ELT308X. / ELT307X.

Triac Optocoupler. Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Maximum operating temperature: 110°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "X" in type denotes X = Part no. (0,1,2,3,4).

#### ELS680.

High Speed Optocoupler . Minimum external creepage distance is measured to 8.4mm, minimum internal creepage distance is measured to 5.56mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 100 °C.

#### ELS60U. / ELS61U. / ELS62U.

High Speed Optocoupler . Minimum external creepage distance is measured to 8.4mm, minimum internal creepage distance is measured to 5.56mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 100 °C.

#### ELS500./ ELS501./ ELS511./ ELS050L./ ELS051L./ ELS052L./ ELS600./ ELS601./ ELS611./ ELS060L./ ELS061L./ ELS062L.

High Speed Optocoupler . Minimum external creepage distance is measured to 8.4mm, minimum internal creepage distance is measured to 5.56mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 100 °C.

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#### ELS3120. / ELS3140. / ELS3150. / ELS3180. / ELS3184.

High Speed Optocoupler . Minimum external creepage distance is measured to 8.4mm, minimum internal creepage distance is measured to 5.56mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 3% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 110 °C

#### ELS270. / ELS271. / ELS272.

High Speed Optocoupler . Minimum external creepage distance is measured to 8.4mm, minimum internal creepage distance is measured to 5.56mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 100 °C.

ELR3602. / ELR3603. / ELR2602. / ELR2603. / ELR1602. / ELR1603. / ELR3502. / ELR3503. / ELR2502. / ELR2503. / ELR1503. / ELR1503. / ELR0223. / ELR1223. / ELR2223. / ELR3223.

Power Triac Optocoupler. Minimum external creepage distance is measured to 8.2mm, minimum internal creepage distance is measured to 5.1mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength tests, between input and output 4800Vac/1 minute. Maximum operating temperature: 100°C

ELR0323. / ELR1323. / ELR2323. / ELR3323. / ELR0313. / ELR1313. / ELR2313. / ELR3313. / ELR0213. / ELR1213. / ELR2213. / ELR3213. / ELR3203.

Power Triac Optocoupler. Minimum external creepage distance is measured to 8.2mm, minimum internal creepage distance is measured to 5.1mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 85 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength tests, between input and output 4800Vac/1 minute. Maximum operating temperature: 85°C

Additional information



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#### **Additional information**

#### ELM684.

High Speed Optocoupler. Minimum external creepage distance is measured to 5.0mm, minimum internal creepage distance is measured to 4.0mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Maximum operating temperature: 100°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute.

#### ELM61U.

High Speed Optocoupler. Minimum external creepage distance is measured to 5.0mm, minimum internal creepage distance is measured to 4.0mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Maximum operating temperature: 100°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute

#### ELM60U.

High Speed Optocoupler. Minimum external creepage distance is measured to 5.0mm, minimum internal creepage distance is measured to 4.0mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Maximum operating temperature: 100°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute.

#### ELM460A./ ELM840A./ ELM860A. / ELM425A.

Solid State Relay. Minimum external creepage distance is measured to 5.7mm, minimum internal creepage distance is measured to 4.31mm and minimum distance through insulation is measured to 0.3mm. Tested for basic insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 125 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output

4800Vac/1 minute. Maximum operating temperature: 125 °C.

#### ELM456. / ELM61L. / ELM680. / ELM511.

High Speed Optocoupler. Minimum external creepage distance is measured to 5.0mm, minimum internal creepage distance is measured to 4.0mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Maximum operating temperature: 100°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute.

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Additional information

#### ELM453H. / ELM611H.

High Speed Optocoupler. Minimum external creepage distance is measured to 5.0mm, minimum internal creepage distance is measured to 4.0mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Maximum operating temperature: 125°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 125 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute.

ELM452. / ELM453. / ELM600. / ELM601. / ELM611. / ELM452L. / ELM453L. / ELM600L. / ELM601L. / ELM611L. / ELM454. / ELM80L. / ELM81L.

High Speed Optocoupler. Minimum external creepage distance is measured to 5.0mm, minimum internal creepage distance is measured to 4.0mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Maximum operating temperature: 100°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute.

#### ELM440A./ELM640A./ ELM660A. / ELM406A

Solid State Relay. Minimum external creepage distance is measured to 5.7mm, minimum internal creepage distance is measured to 4.31mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 125 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 125 °C.

#### ELM312. / ELM315.

Optocoupler. Minimum external creepage distance is measured to 5.0mm, minimum internal creepage distance is measured to 4.0mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Maximum operating temperature: 110°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute.

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Additional information

#### ELL300.

Linear Optocoupler. Minimum external creepage distance is measured to 8.0mm, minimum internal creepage distance is measured to 0.90mm and minimum distance through insulation is measured to 0.90mm. Tested for basic/supplementary insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 110 °C.

#### ELL200.

Linear Optocoupler. Minimum external creepage distance is measured to 11.85mm, and minimum distance through insulation is measured to 1.0mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 110 °C.

ELD851. /ELD852. /4N29. /4N30. /4N31. /4N32. /4N33. /H11B1. /H11B2. /H11B3. /H11B255. /TIL113. /MOC119. /MOC8020. /MOC8021. /MOC8030. /MOC8050. /MOC8080. /EL301X. /EL302X. /EL305X. /EL307X. /EL303X. /EL304X. /EL306X. /EL308X. /EL3161. /EL3162. /EL3163. /H11L1. /H11L2.

Optocoupler. Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 5.5mm and minimum distance through insulation is measured to 0.5mm.Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 100°C. The symbol "X" in type denotes X = Part no. (0,1,2,3,4).

# ELD3H5. / ELD3H6. / ELD3H7. / ELD3H4. / ELQ3H4. / ELQ3H5. / ELQ3H7. / ELM314.

Optocoupler. Minimum external creepage distance is measured to 5.0mm, minimum internal creepage distance is measured to 4.0mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Maximum operating temperature: 110°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute.

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#### Additional information

#### EL847. / EL844. / EL845.

Optocoupler. Minimum external creepage distance is measured to 8.0mm, minimum internal creepage distance is measured to 5.1mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength tests, between input and output 4800Vac/1 minute. Maximum operating temperature: 110°C

#### EL817H.

Optocoupler. Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 125 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 125°C

#### EL815. / EL814. / EL824. / EL825.

Optocoupler. Minimum external creepage distance is measured to 7.9mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 110°C

EL806A. /EL810A. /EL820A. /EL825A. /EL835A. /EL840A. /EL860A. /EL860A-V / EL406A. /EL410A. /EL420A. /EL425A. /EL435A. /EL440A. /EL460A. /EL606A. /EL610A. /EL620A. /EL625A. /EL635A. /EL640A. /EL660A.

Solid State Relay. Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Maximum operating temperature: 125°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 125 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute.

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EL617. / CNY75G. / CQY80.G / K233.G / TCDT110.G / TCDT111.G / TCDT112.G / HS817.G / TCET110.G / TCET111.G / TCET120.G Optocoupler. Minimum external creepage distance is measured to 8.0mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 110°C

EL451. / EL452. / EL3H7L. / EL351. / EL352. / EL3571N. / EL357NL. Optocoupler. Minimum external creepage distance is measured to 5.0mm, minimum internal creepage distance is measured to 4.0mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 110°C. The symbol "X" in type denotes X = Part no. (0,1,2,3,4).

#### EL3H5.

Optocoupler. Minimum external creepage distance is measured to 5.0mm, minimum internal creepage distance is measured to 4.0mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 110°C. The symbol "X" in type denotes X = Part no. (0, 1, 2, 3, 4).

#### EL3120. / EL3140. / EL3150. / EL3180. / EL3184.

IGBT Gate Drive Optocoupler. Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Maximum operating temperature: 110°C. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute.

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EL2801. /EL354. /EL355. /EL356. /EL357. /EL359. /EL121. /EL124. /EL2701. /EL2705. /EL357N. /EL356N. /EL121N. /EL124N. /EL2701N. /EL354N. /EL2705N. /EL3H7. /EL281. /EL3H4. /EL280. /EL3H71. /ELM301X. /ELM302X. /ELM305X. /ELM307X. /ELM303X. /ELM304X. /ELM306X. /ELM308X.

Optocoupler. Minimum external creepage distance is measured to 5.0mm, minimum internal creepage distance is measured to 4.0mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 110°C. The symbol "X" in type denotes X = Part no. (0,1,2,3,4).

# EL2514.

Optocoupler. Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 110°C. Tested for 5000m.

EL2200. / EL2212. / EL2231. / EL2201. / EL2202. / EL2219. / EL2211. / EL2232.

High Speed Optocoupler. Minimum external creepage distance is measured to 8.2mm, minimum internal creepage distance is measured to 5.1mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength tests, between input and output 4800Vac/1 minute. Maximum operating temperature: 100°C

EL205. / EL206. / EL207. / EL208. / EL211. / EL212. / EL213. / EL215. /EL216. / EL217. / ELD207. / ELD208. / ELD213. / ELD217. / ELD205. /ELD206. / ELD211.

Optocoupler. Minimum external creepage distance is measured to 4.4mm, minimum internal creepage distance is measured to 3.5mm and minimum distance through insulation is measured to 0.4mm. Tested for basic and supplementary insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 2400Vac/1 minute. Maximum operating temperature: 110°C

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# EL10XX. / EL357L. / EL355L. / EL354L. / EL111X. / EL161X. / EL151X. / EL101L.

Optocoupler. Minimum external creepage distance is measured to 8.1mm, minimum internal creepage distance is measured to 5.2mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 110°C. The symbol "X" in type denotes X = Part no. (0,1,2,3,4,5,6,7,8,9). Tested for 5000m.

### EL101XH.

Optocoupler. Minimum external creepage distance is measured to 8.1mm, minimum internal creepage distance is measured to 5.2mm and minimum distance through insulation is measured to 0.4mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 125 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 125°C. The symbol "X" in type denotes X = Part no. (0,1,2,3,4,5,6,7,8,9)

#### EL080L./ EL081L. / EL083L. / EL086L

High Speed Optocoupler . Minimum external creepage distance is measured to 4.4mm, minimum internal creepage distance is measured to 3.5mm and minimum distance through insulation is measured to 0.4mm. Tested for basic and supplementary insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 2400Vac/1 minute. Maximum operating temperature: 100°C. The symbol "X" in type denotes X = Part no. (0,1,L,A,N).

EL0500. /EL0501. /EL0452. /EL0453. /EL0454. /EL0600. /EL0601. /EL0611. /EL0700. /EL050L. /EL060L. /EL0701. /EL061A. /EL061N. /EL0551. /EL0530. /EL0531. /EL0533. /EL063X. /EL0661. /EL0730. /EL0731. /EL053L.

High Speed Optocoupler . Minimum external creepage distance is measured to 4.4mm, minimum internal creepage distance is measured to 3.5mm and minimum distance through insulation is measured to 0.4mm. Tested for basic and supplementary insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 2400Vac/1 minute. Maximum operating temperature: 100°C. The symbol "X" in type denotes X = Part no. (0,1,L,A,N).

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EL0200. / EL0201. / EL0202. / EL0210. / EL0211. / EL0212. High Speed Optocoupler . Minimum external creepage distance is measured to 4.4mm, minimum internal creepage distance is measured to 3.5mm and minimum distance through insulation is measured to 0.4mm. Tested for basic and supplementary insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 2400Vac/1 minute. Maximum operating temperature: 100°C. The symbol "X" in type denotes X = Part no. (0,1,L,A,N).

CNX36U. /CNX38U. /CNX39U. /SL5500. /SL5501. /SL5504. /SL5511. /MOC8100. /MOC8101. /MOC8102. /MOC8103. /MOC8104. /MOC8105. /MOC8106. /MOC8107. /MOC8108. /EL9001. /CNY17F-1. /CNY17F-2. /CNY17F-3. /CNY17F-4. /H11AA1. /H11AA2. /H11AA3. /H11AA4. /HS817. /K817P. /TCET110.

Optocoupler. Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Thermal cycling test, 10 cycles. Each cycle: 68h in 110 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. Maximum operating temperature: 110°C. Tested for 5000m.

As shown in the Test Report(s) No(s):

REP008814



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