

CERTIFICATE FI/41762/M1

Our Ref. HEL-CERT230801344-02

Product Optocoupler

Type See pages 2-18

Trademark EVERLIGHT

Certificate Holder Everlight Electronics Co., Ltd.

6-8, Zhonghua Road, Shulin, New Taipei City, 23860, Taiwan

Technical

information

Other information The symbol "." in type designation may be blank, A~Z or numbers, and denote different

pin shape.

250Vrms

The product is certified according to the following standard(s)

EN 60335-1:2012 + A11:2014 + A13:2017 + A1:2019 + A2:2019 + A14:2019 +

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 2028-09-01 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 2025-12-16

SGS Fimko Oy

Signature

Certification Manager

Certification Manager

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Manufacturer

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

Manufacturing site

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

Additional information

The product has certificate P23226996/A3 issued by Nemko AS in accordance with the Nordic Certification Service system.

This certificate replaces previous certificate FI/41762, dated 2023-09-01, due to addition of new models.

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

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Additional information

TCET111. /TCET120. /VO610A. /VO615A. /CNY17G. /CNY75. /CQY80. /K233. /TCDT110. /TCDT111. /TCDT112. /EL2501. /EL2561. /EL8171. /CNY171-1. /CNY171-2. /CNY171-3. /CNY171-4. /CNY17F1-1. /CNY17F1-3. /CNY17F1-4. /EL610. /EL817L. Optocoupler. Minimum external creepage distance is measured to

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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Additional information

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.

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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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Additional information

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. / ELR1502. / 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

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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 and supplementary 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 4800 Vac/1 minute. Maximum operating temperature: 100°C . The symbol "X" in type denotes $X = \text{Part no.} \ (0,1,2,3,4)$.

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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Additional information

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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Additional information

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 4800 Vac/1 minute. Maximum operating temperature: 110°C . The symbol "X" in type denotes $X = \text{Part no.} \ (0,1,2,3,4,5,6,7,8,9)$. Tested for 5000 m.

FL101XH.

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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Additional information

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.

ELC101.

Linear 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 0.40mm. 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 $X = \text{Part no.} \ (0,1,2,3,4,5,6,7,8,9)$. Tested for 5000m

ELC3HX.

Linear 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 0.63mm. 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. The symbol "X" in type denotes X = Part no. (0,1,2,3,4,5,6,7,8,9)

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Additional information

ELC816.

Linear 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 0.69mm. 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. Tested for 5000m.

ELC35XN.

Linear 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 0.43mm. 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. The symbol "X" in type denotes X = Part no. (0,1,2,3,4,5,6,7,8,9).

E (L,V)61XXA.SERIES

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 (110 °C for model EL). 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" in type denotes X = Part no. (0,1,2,3,4,5,6,7,8,9).

E(L,V)16XX0A. SERIES

Solid State Relay Coupler. Minimum external creepage distance is measured to 8.3mm, minimum internal creepage distance is measured to 5.3mm 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: 125°C (110 °C for model EL). The symbol "X" in type denotes X = Part no. (0,1,2,3,4,5,6,7,8,9). Tested for 5000m.

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Additional information

EL2751.

High Speed Optocoupler. Minimum external creepage distance is measured to 7.0mm, 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 4800 Vac/1 minute. Maximum operating temperature: 125°C

ELMLXK.

Phototransistor. Minimum external creepage distance is measured to 8.1mm, minimum internal creepage distance is measured to 5.2 mm 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 5000Vac/1 minute. Maximum operating temperature: 125° C. The symbol "X" in type denotes X = Part no. (0~9 or A~Z)

ELM406AX.

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. The symbol "X" in type denotes X = Part no. (0~9 or A~Z).

ELM403AX.

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. The symbol "X" in type denotes X = Part no. (0~9 or A~Z). LM403AX.

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Additional information

ELH5XX.

High Speed transistor. Minimum external creepage distance is measured to 15mm, minimum internal creepage distance is measured to 14.2mm 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 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 4800 Vac/1 minute. Maximum operating temperature: $125 \,^{\circ}\text{C}$. Any symbol "X" in the type indicates X = part number $(0~9 \,^{\circ}\text{C})$

ELH6XX

High Speed CMOS. Minimum external creepage distance is measured to 15mm, minimum internal creepage distance is measured to 14.2mm 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 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. Any symbol "X" in the type indicates X = part number (0~9 or A~Z).

ELH31XX.

Output Current Gate Driver. Minimum external creepage distance is measured to 15mm, minimum internal creepage distance is measured to 14.2mm 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 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. Any symbol "X" in the type indicates X = part number (0~9 or A~Z).

ELHXK.

Transistor. Minimum external creepage distance is measured to 15mm, minimum internal creepage distance is measured to 14.2mm 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 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 4800 Vac/1 minute. Maximum operating temperature: $125 \,^{\circ}\text{C}$. Any symbol "X" in the type indicates X = part number (0~9 or A~Z).

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Additional information

ELHXXK.

Transistor. Minimum external creepage distance is measured to 15mm, minimum internal creepage distance is measured to 14.2mm 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 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. Any symbol "X" in the type indicates X = part number (0~9 or A~Z)

ELH81X.

Transistor. Minimum external creepage distance is measured to 15mm, minimum internal creepage distance is measured to 14.2mm 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 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. Any symbol "X" in the type indicates $X = \text{part number} \quad (0~9 \text{ or } A~Z)$

As shown in the Test Report(s) No(s): REP008814, REP067246, REP098780



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