



FOLLOW-UP SERVICE PROCEDURE
(TYPE R)

COMPONENT - OPTICAL ISOLATORS
(FPQU2,FPQU8)

Complementary Product Category

Manufacturer: SEE ADDENDUM FOR MANUFACTURER LOCATIONS

Applicant: 176764 (Party Site)
EVERLIGHT ELECTRONICS CO LTD
(812081-001) 6-8 ZHONGHUA RD SHULIN DISTRICT
NEW TAIPEI
23860 TAIWAN

Recognized Company: 176764 (Party Site)
SAME AS APPLICANT
(812081-001)

This Follow-Up Service Procedure authorizes the above Manufacturer(s) to use the marking specified by UL LLC, or any authorized licensee of UL LLC, including the UL Contracting Party, only on products when constructed, tested and found to be in compliance with the requirements of this Follow-Up Service Procedure and in accordance with the terms of the applicable service agreement with UL Contracting Party and any applicable Service Terms. The UL Contracting Party for Follow-Up Services is listed on addendum to this Follow-Up Service Procedure ("UL Contracting Party"). UL Contracting Party and UL LLC are referred to jointly herein as "UL."

UL further defines responsibilities, duties and requirements for both Manufacturers and UL representatives in the document titled, "UL Mark Surveillance Requirements" that can be located at the following web-site: <http://www.ul.com/fus> and in the document titled "UL and Subscriber Responsibilities" that can be located at the following website: <http://www.ul.com/responsibilities>. Manufacturers without Internet access may obtain the current version of these documents from their local UL customer service representative or UL field representative. For assistance, or to obtain a paper copy of these documents or the applicable Service Terms, please contact UL's Customer Service at <http://www.ul.com/global/eng/pages/corporate/contactus>, select a location and enter your request, or call the number listed for that location.

The Applicant, the specified Manufacturer(s) and any Recognized Company in this Follow-Up Service Procedure must agree to receive Follow-Up Services from UL Contracting Party. If your applicable agreement is a Global Services Agreement ("GSA") with an effective date of January 1, 2012 or later and this Follow-Up Service Procedure is issued on or after that effective date, the Applicant, the specified Manufacturer(s) and any Recognized Company will be bound to a Service Agreement for Follow-Up Services upon the earliest by any Subscriber of use of the prescribed UL Mark, acceptance of the factory inspection, or payment of the Follow-Up Service fees which will incorporate such GSA, this Follow-Up Service Procedure and the Follow-Up Service Terms which can be accessed by clicking here: <http://www.ul.com/contracts/Terms-After-12-31-2011>. In all other events, Follow-Up Services will be governed by and incorporate the terms of your applicable service agreement and this Follow-Up Service Procedure.

It is the responsibility of the Recognized Company to make sure that only the products meeting the aforementioned requirements bear the authorized Marks of UL LLC, or any authorized licensee of UL LLC.

This Follow-Up Service Procedure contains information for the use of the above Manufacturer(s) and representatives of UL and is not to be used for any other purpose. It is provided to the Manufacturer with the understanding that it will be returned upon request and is not to be copied in whole or in part.

This Follow-Up Service Procedure, and any subsequent revisions, is the property of UL and is not transferable. This Follow-Up Service Procedure contains confidential information for use only by the above named Manufacturer(s) and representatives of UL and is not to be used for any other purpose. It is provided to the Subscribers with the understanding that it is not to be copied, either wholly or in part unless specifically allowed, and that it will be returned to UL, upon request.

Capitalized terms used but not defined herein have the meanings set forth in the GSA and the applicable Service Terms or any other applicable UL service agreement.

UL shall not incur any obligation or liability for any loss, expense or damages, including incidental, consequential or punitive damages arising out of or in connection with the use or reliance upon this Follow-Up Service Procedure to anyone other than the above Manufacturer(s) as provided in the agreement between UL LLC or an authorized licensee of UL LLC, including UL Contracting Party, and the Manufacturer(s).

UL LLC has signed below solely in its capacity as the accredited entity to indicate that this Follow-Up Service Procedure is in compliance with the accreditation requirements.

William R. Carney
Director
North American Certification Program

LOCATION

(100105-150) 962793 (Party Site)
EVERLIGHT ELECTRONIC (CHINA) CO LTD
2135 ZHONG SHAN NORTH RD
WUJIANG ECONOMY DEVELOPMENT ZONE
(YUN XI AREA), SONGLING TOWN
WUJIANG CITY,
JIANG SU 215000 CHINA

Factory ID: NONE
UL Contracting Party for above site is: UL AG

Recognized Component Marking Data Page (RCMDP)

(FILE IMMEDIATELY AFTER AUTHORIZATION PAGE)

RECOGNIZED COMPONENT MARKING

Products Recognized under UL's Component Recognition Service are identified by marking elements consisting of:

1. The Recognized Company's identification specified in this document.
2. A catalog, model or other applicable product designation specified in the descriptive sections of this document.
3. The UL Recognized Component Mark shown below is optional unless required elsewhere in the Procedure.

Only those components, which actually bear the Marking, should be considered as being covered under the Recognition Program. The UL Listing or Classification Mark is not authorized for use on or in connection with Recognized Components.

Recognized Component Mark



Minimum size of the Recognized Component Mark is not specified as long as it is legible. Minimum height of the registered symbol ® shall be 3/64 inch but may be omitted if it is out of proportion to the Recognized Component Mark or not legible to the naked eye.

The manufacturer may reproduce the Mark electronically. Any decision regarding the acceptability of the manufacturer's Mark reproduction will be made at the Reviewing Office.

Recognized Component Marking Data Page (RCMDP)

(FILE IMMEDIATELY AFTER AUTHORIZATION PAGE)

RECOGNIZED COMPONENT MARKING

Products Recognized under UL's Component Recognition Service are identified by marking elements consisting of:

1. The Recognized Company's identification specified in this document.
2. A catalog, model or other applicable product designation specified in the descriptive sections of this document.
3. The UL Recognized Component Mark shown below:
 - (A) Recognized only to Canadian safety requirements, or;
 - (B) Recognized to both U.S. and Canadian safety requirements.

Only those components, which actually bear the Marking, should be considered as being covered under the Recognition Program. The UL Listing or Classification Mark is not authorized for use on or in connection with Recognized Components.

Recognized Component Mark

(A)



(B)



Minimum size of the Recognized Component Mark is not specified as long as it is legible. Minimum height of the registered symbol ® shall be 3/64 inch but may be omitted if it is out of proportion to the Recognized Component Mark or not legible to the naked eye.

The manufacturer may reproduce the Mark electronically. Any decision regarding the acceptability of the manufacturer's Mark reproduction will be made at the Reviewing Office.

GENERAL

PRODUCT COVERED:

Component - Optical Isolators.

MANUFACTURING LOCATION and Identification:

(MULTIPLE) MANUFACTURING LOCATIONS:


The products in this Follow-Up Service Procedure are manufactured at more than one location. The Manufacturer's I.D. Marking shown below shall be marked on each unit to identify the unit as the product of a particular factory. Permanency of Marking is not required for the Manufacturer's ID Markings.

Please see the Addendum to Authorization Page for Factory Location and ID •

MARKING:

USR - Recognized company name or trademark, and model designation provided on each unit.

CNR - Recognized company name or trademark, model designation, and the

Recognized Component Mark for Canada , provided on each unit.

TRADEMARK DESIGNATION:

The following trademark or trade name, if any, may be used to identify products described in this Procedure in lieu of the Listee and/or Recognized Company name. The company identification is the Recognized Company's name or trademark.



Or



Or

EVERLIGHT®

Everlight , EL

RATINGS:

Specification Sheet - The rating information specified below shall appear in the manufacturer's specifications for the product and may be expressed in tabular or graphic format:

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

GENERAL CONSTRUCTION:

Corrosion Protection - All ferrous parts are of corrosion resistant material or are plated or painted as corrosion protection.

File E214129

Vol. 1

Sec. Gen.

Page 2

Issued: 2001-02-27
Revised: 2006-04-18

This Page Replaces Page 2.

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Model Numbers	Section	Date	Requirements Evaluated to (US and/or CN)
<p>Double Protection Optical Isolators, Models 817, CNY75, CQY80, EL101, EL111, EL121, EL121N, EL124, EL124N, EL151, EL161, EL354, EL354L, EL354N, EL355, EL355L, EL356, EL356N, EL357, EL357L, EL357N, EL359, EL610, EL617, EL7X7, EL8X4, EL8X5, EL8X6, EL8X7, EL844, EL845, EL847, EL8X9, EL2501, EL2561, EL2701, EL2701N, EL2705, EL2705N, EL8171, EL9001, HS817, K233, K817P, TCDT110, TCDT111, TCDT112, TCET110, TCET111, TCET120, VO610A, and, VO615A. "X" may be 1 or 2.</p> <p>Double Protection Optical Isolators, Models EL3H7, EL3H71, EL281, EL2801, EL3H4, and EL280.</p> <p>Double Protection Optical Isolators, Models 4N, MCT2, CNY17, MOC811, H11A, MOC810, TIL11, CNX3 and SL55.</p> <p>Double Protection Optical Isolators, Models H11AA1, H11AA2, H11AA3, H11AA4, 4N29, 4N30, 4N31, 4N32, 4N33, H11B1, H11B2, H11B3, H11B255, TIL113, MOC119, MOC8020, MOC8021, MOC8030, MOC8050, MOC8080, EL3010, EL3011, EL3012, EL3013, EL3014, EL3020, EL3021, EL3022, EL3023, EL3024, EL3050, EL3051, EL3052, EL3053, EL3054, EL3030, EL3031, EL3032, EL3033, EL3034, EL3040, EL3041, EL3042, EL3043, EL3044, EL3060, EL3061, EL3062, EL3063, EL3064, EL3070, EL3071, EL3072, EL3073, EL3074, EL3080, EL3081, EL3082, EL3083, EL3084, EL3161, EL3162, EL3163, ELM4, ELM6, H11L1, H11L2, and H11L3.</p> <p>Double Protection Optical Isolators, Models EL205, EL206, EL207, EL208, EL211, EL212, EL213, EL215, EL216, EL217, ELD205, ELD206, ELD207, ELD208, ELD211, ELD213, and ELD217.</p> <p>Double Protection Optical Isolators, Models HS817, K817P, TCET110, TCET111, TCET120, VO610, VO615A, CNY75, CQY80, K233, TCDT110, TCDT111, and TCDT112.</p> <p>Double Protection Optical Isolators, Models ELD3H4, ELD3H5, ELD3H6, ELD3H7, ELQ3H4, ELQ3H5, ELQ3H7.</p> <p>All Models may be followed by any letters or numbers.</p>	1	2001-02-27	US, CN

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Model Numbers	Section	Date	Requirements Evaluated to (US and/or CN)
<p>Double Protection Optical Isolators, Models 4N5, 6N135, 6N136, 6N137, 6N138, 6N139, CNY64, CNY65, EL050L, EL060L, EL061A, EL061N, EL0452, EL0453, EL0454, EL0500, EL0501, EL0600, EL0601, EL0611, EL0700, EL0701, EL250L, EL253L, EL260L, EL261A, EL261N, EL263A, EL263L, EL263N, EL371, EL725, EL851, EL852, EL2200, EL2201, EL2202, EL2219, EL2211, EL2212, EL2231, EL2232, EL2502, EL2503, EL2530, EL2531, EL2601, EL2611, EL2630, EL2631, EL2730, EL2731, EL4502, EL4503, EL4504, EL4534, EL4661, ELD851, ELD852, ELW135, ELW136, ELW137, ELW138, ELW139, ELW250L, ELW260L, ELW2601, ELW2611, ELW3120, ELW3140, ELW3150, ELW3180, ELW3184, ELW4502, ELW4503, ELW4504, H11D, H11G1, H11G2, H11G3.</p> <p>All models may be followed by any letters or numbers.</p>	2	2008-08-12	US, CN
<p>Double Protection, Optical Isolator, Models EL451, EL452, EL053L, EL0530, EL0531, EL0533, EL0551, EL063A, EL063L, EL063N, EL0630, EL0631, EL0661, EL0730, EL0731, ELM314, ELM452, ELM452L, ELM453, ELM453L, ELM454, ELM600, ELM600L, ELM601, ELM601L, ELM611, ELM611L, ELM3010, ELM3011, ELM3012, ELM3013, ELM3014, ELM3020, ELM3021, ELM3022, ELM3023, ELM3024, ELM3030, ELM3031, ELM3032, ELM3033, ELM3034, EL3040, ELM3041, ELM3042, ELM3043, ELM3044, ELM3050, ELM3051, ELM3052, ELM3053, ELM3054, ELM3060, ELM3061, ELM3062, ELM3063, ELM3064, ELM3070, ELM3071, ELM3072, ELM3073, ELM3074, ELM3080, ELM3081, ELM3082, ELM3083, ELM3084.</p> <p>All models may be followed by any letters or numbers.</p>	3	2010-08-26	US, CN

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Model Numbers	Section	Date	Requirements Evaluated to (US and/or CN)
<p>Double Protection, Optical Isolator, Models ELR3202, ELR3203, ELR3212, ELR3213, ELR3222, ELR3223, ELR3232, ELR3233, ELR3502, ELR3503, ELR3512, ELR3513, ELR3522, ELR3523, ELR3532, ELR3533, ELR3702, ELR3703, ELR3712, ELR3713, ELR3722, ELR3723, ELR3732, ELR3733.</p> <p>Double Protection, Optical Isolator, Models ELR3402, ELR3403, ELR3412, ELR3413, ELR3422, ELR3423, ELR3432, ELR3433, ELR3602, ELR3603, ELR3612, ELR3613, ELR3622, ELR3623, ELR3632, ELR3633, ELR3802, ELR3803, ELR3812, ELR3813, ELR3822, ELR3823, ELR3832, ELR3833.</p>	4	2010-09-17	US, CN
<p>Double Protection Optical Isolator, ELT3010, ELT3011, ELT3012, ELT3013, ELT3014, ELT3020, ELT3021, ELT3022, ELT3023, ELT3024, ELT3030, ELT3040, ELT3050, ELT3051, ELT3052, ELT3053, ELT3054, ELT3031, ELT3032, ELT3033, ELT3034, ELT3041, ELT3042, ELT3043, ELT3060, ELT3044, ELT3061, ELT3062, ELT3063, ELT3064, ELT3070, ELT3071, ELT3072, ELT3073, ELT3074, ELT3080, ELT3081, ELT3082, ELT3083, and ELT3084, may be followed by any letters or numbers.</p>	5	2011-09-02	US, CN
<p>Double Protection Optical Isolator, Models EL3120, EL3140, EL3150, EL3180, EL3184, EL406X, EL410X, EL420X, EL425X, EL435X, EL440X, EL460X, EL606X, EL610X, EL620X, EL625X, EL635X, EL640X, EL660X, EL806A, EL810A, EL820A, EL825A, EL835A, EL840A, EL860A where X may be A or B. All models may be followed by any letters or numbers, except A or B.</p>	6	2012-02-22	US, CN

File E214129
Project 00CA06189

February 27, 2001

REPORT

ON

COMPONENT - OPTICAL ISOLATORS

Everlight Electronics Co., Ltd.
Tucheng, Taipei, Taiwan

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DESCRIPTION

PRODUCT COVERED:

USR, CNR Component - Double Protection Optical isolators, Models 817, CNY75, CQY80, EL101, EL111, EL121, EL121N, EL124, EL124N, EL151, EL161, EL354, EL354L, EL354N, EL355, EL355L, EL356, EL356N, EL357, EL357L, EL357N, EL359, EL610, EL617, EL7X7, EL8X4, EL8X5, EL8X6, EL8X7, EL8X9, **EL844, EL845, EL847**, EL2501, EL2561, EL2701, EL2701N, EL2705, EL2705N, EL8171, EL9001, HS817, K233, K817P, TCDT110, TCDT111, TCDT112, TCET110, TCET111, TCET120, VO610A, and, VO615A. "X" may be 1 or 2.

USR, CNR Component - Double Protection Optical isolators, Models 4N, MCT2, CNY17, MOC811, H11A, MOC810, TIL11, CNX3 and SL55.

USR, CNR Component - Double Protection Optical Isolators, Models EL3010, EL3011, EL3012, EL3013, EL3014, EL3020, EL3021, EL3022, EL3023, EL3024, EL3050, EL3051, EL3052, EL3053, EL3054, EL3030, EL3031, EL3032, EL3033, EL3034, EL3040, EL3041, EL3042, EL3043, EL3044, EL3060, EL3061, EL3062, EL3063, EL3064, EL3070, EL3071, EL3072, EL3073, EL3074, EL3080, EL3081, EL3082, EL3083, EL3084, EL3161, EL3162, EL3163, ELM4, ELM6, H11AA1, H11AA2, H11AA3, H11AA4, 4N29, 4N30, 4N31, 4N32, 4N33, H11B1, H11B2, H11B3, H11B255, H11L1, H11L2, H11L3, MOC119, MOC8020, MOC8021, MOC8030, MOC8050, MOC8080, TIL113.

USR, CNR Component - Double Protection Optical isolators, Models EL280, EL281, EL2801, EL3H4, EL3H7, and EL3H71.

USR, CNR Component - Double Protection Optical Isolators, Models EL205, EL206, EL207, EL208, EL211, EL212, EL213, EL215, EL216, EL217, ELD205, ELD206, ELD207, ELD208, ELD211, ELD213, and ELD217.

USR, CNR Component - Double Protection Optical Isolators, Models ELD3H4, ELD3H5, ELD3H6, ELD3H7, ELQ3H4, ELQ3H5, ELQ3H7.

All Models may be followed by any letters or numbers.

GENERAL:

These devices are photocoupled isolators consisting of a gallium arsenide light emitting diode, optically coupled to a silicone phototransistor. They are intended to be used in applications where the suitability of the combination has been determined by Underwriters Laboratories Inc. Only the insulating function, for the rated dielectric insulation voltage, between the input and output of the device has been investigated.

MAXIMUM RATINGS CONTINUED (at nominal operating temperature) Cont'd:

Model	Current (mA)		Power (mW)		Isolation Voltage	Max Operating Temp (°C)	Max Junction Temp (°C)	Max Storage Temp (°C)
	Emitter	Sensor	Emitter	Sensor				
EL8171	60	50	100	150	5000	110	125	125
EL9001	60	50	100	150	5000	110	125	125
H11AA1, H11AA2, H11AA3, H11AA4	60	50	120	150	5000	100	125	125
4N29, 4N30, 4N31, 4N32, 4N33, H11B1, H11B2, H11B3, H11B255, TIL113, MOC119, MOC8020, MOC8021, MOC8030, MOC8050, MOC8080	60	150	120	150	5000	100	125	125
EL3010, EL3011, EL3012, EL3013, EL3014, EL3021, EL3022, EL3020, EL3023, EL3024, EL3050, EL3051, EL3052, EL3053, EL3054, EL3070, EL3071, EL3072, EL3073, EL3074	60	100	100	300	5000	100	125	125
EL3030, EL3031, EL3032, EL3033, EL3034, EL3040, EL3041, EL3042, EL3043, EL3044, EL3061, EL3062, EL3063, EL3060, EL3161, EL3064, EL3162, EL3163, EL3080, EL3081, EL3082, EL3083, EL3084, ELM4, ELM6	60	100	100	300	5000	100	125	125
H11L1, H11L2, H11L3	60	50	120	150	5000	100	125	125
HS817, K817P, TCET110, TCET111, TCET120, VO610A, VO615A	60	50	100	150	5000	110	125	125
CNY75, CQY80, K233, TCDT110, TCDT111, TCDT112	60	50	100	150	5000	110	125	125
ELD3H4, ELD3H6, ELD3H7,	60	50	100	150	3750	110	125	125
ELD3H5	60	100	100	150	3750	110	125	125
ELQ3H4, ELQ3H7	60	50	100	150	3750	110	125	125
ELQ3H5	60	100	100	150	3750	110	125	125
EL844	60	50	100	150	5000	110	125	125
EL845	60	100	100	150	5000	110	125	125
EL847	60	50	100	150	5000	110	125	125

- See ILL. 3 for the Derating Curves of representative models.

ENGINEERING CONSIDERATIONS: (Not for Field Representative's Use)

Use - For use only in (or with) complete equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

Special Considerations - The following items are considerations that were used when evaluating this product.

USR indicates investigation to the U.S. Standard for Safety for Optical Isolators, UL 1577.

CNR indicates investigation to the Canadian Standard, CAN/CSA Component Acceptance Service Notice No. 5.

File E214129
Project 08CA17258

August 12, 2008

REPORT

ON

COMPONENT - OPTICAL ISOLATORS

Everlight Electronics Co Ltd
TUCHENG, TAIPEI, TAIWAN

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Model	Current (mA)		Power (mW)		Isolation Voltage	Max Operating (Ambient) Temp (°C)	Max Junction Temp (°C)	Max Storage Temp (°C)
	Emitter	Sensor	Emitter	Sensor				
EL250L	25	8	45 @ 1 Mbps	100 @ 1 Mbps	5000	100	125	125
EL2502	25	8	45 @ 1 Mbps	100 @ 1 Mbps	5000	100	125	125
EL2503	25	8	45 @ 1 Mbps	100 @ 1 Mbps	5000	100	125	125
EL253L	25	8	45 @ 1 Mbps	35 @ 1 Mbps	5000	100	125	125
EL2530	25	8	45 @ 1 Mbps	35 @ 1 Mbps	5000	100	125	125
EL2531	25	8	45 @ 1 Mbps	35 @ 1 Mbps	5000	100	125	125
EL260L	20	50	40 @10 Mbps	85 @10 Mbps	5000	100	125	125
EL2601	20	50	40 @10 Mbps	85 @10 Mbps	5000	100	125	125
EL2611	20	50	40 @10 Mbps	85 @10 Mbps	5000	100	125	125
EL2630	20	50	40 @10 Mbps	60 @10 Mbps	5000	100	125	125
EL2631	20	50	40 @10 Mbps	60 @10 Mbps	5000	100	125	125
EL2730	20	60	35	100	5000	100	125	125
EL2731	20	60	35	100	5000	100	125	125
EL261A	20	50	40 @10 Mbps	85 @10 Mbps	5000	100	125	125
EL261N	20	50	40 @10 Mbps	85 @10 Mbps	5000	100	125	125
EL2611	20	50	40 @10 Mbps	85 @10 Mbps	5000	100	125	125
EL263A	20	50	40 @10 Mbps	60 @10 Mbps	5000	100	125	125
EL263L	20	50	40 @10 Mbps	60 @10 Mbps	5000	100	125	125
EL263N	20	50	40 @10 Mbps	60 @10 Mbps	5000	100	125	125
EL2630	20	50	40 @10 Mbps	60 @10 Mbps	5000	100	125	125
EL2631	20	50	40 @10 Mbps	60 @10 Mbps	5000	100	125	125
EL2730	20	60	35	100	5000	100	125	125
EL2731	20	60	35	100	5000	100	125	125

Model	Current (mA)		Power (mW)		Isolation Voltage	Max Operating (Ambient) Temp (°C)	Max Junction Temp (°C)	Max Storage Temp (°C)
	Emitter	Sensor	Emitter	Sensor				
*EL4502	25	8	45	100	5000	100	125	125
*EL4503	25	8	45	100	5000	100	125	125
EL4504	25	8	45	100	5000	100	125	125
*EL4534	25	8	45	35	5000	100	125	125
*EL4661	20	50	40	60	5000	100	125	125
H11D	80	100	150	300	5300	100	125	150
H11G1	60	150	100	200	5000	100	125	125
H11G2	60	150	100	200	5000	100	125	125
H11G3	60	150	100	200	5000	100	125	125
EL050L	25	8	45	100	3750	100	125	125
EL0500	25	8	45	100	3750	100	125	125
EL0501	25	8	45	100	3750	100	125	125
EL0452	25	8	45	100	3750	100	125	125
EL0453	25	8	45	100	3750	100	125	125
EL0454	25	8	45	100	3750	100	125	125
EL060L	20	50	40	85	3750	100	125	125
EL0600	20	50	40	85	3750	100	125	125
EL0601	20	50	40	85	3750	100	125	125
EL061A	20	50	40	85	3750	100	125	125
EL061N	20	50	40	85	3750	100	125	125
EL0611	20	50	40	85	3750	100	125	125
EL0700	20	60	35	100	3750	100	125	125
EL0701	20	60	35	100	3750	100	125	125
ELD851	80	100	150	300	5300	100	125	150
ELD852	60	150	100	300	5000	100	125	125
ELW135	40	16	80	100	5000	100	125	125
ELW136	40	16	80	100	5000	100	125	125
ELW137	40	50	80	85	5000	100	125	125
ELW138	40	60	80	100	5000	100	125	125
ELW139	40	60	80	100	5000	100	125	125
ELW250L	40	16	80	100	5000	100	125	125
ELW260L	40	50	80	85	5000	100	125	125
ELW2601	40	50	80	85	5000	100	125	125
ELW2611	40	50	80	85	5000	100	125	125
ELW3120	50	300	100	300	5000	110	125	125
ELW3140	50	300	100	300	5000	110	125	125
ELW3150	50	300	100	300	5000	110	125	125
ELW3180	50	300	100	300	5000	110	125	125
ELW3184	50	300	100	300	5000	110	125	125
ELW4502	40	16	80	100	5000	100	125	125
ELW4503	40	16	80	100	5000	100	125	125
ELW4504	40	16	80	100	5000	100	125	125

GENERAL:

These devices are photocoupled isolators consisting of a photo-emitter such as a light emitting diode, optically coupled to a photo-sensor , such as a transistor. The emitter and sensor are separated by an insulating window. Internal "chips" are connected to lead frames that are molded into the enclosure.

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Use - For use only in products where the acceptability of the combination is determined by Underwriters Laboratories Inc.

*USR indicates this product was investigated under the UL Standard for Safety for Optical Isolators, UL 1577, Fourth 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. 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.
4. In addition to meeting single protection requirements, double protection optical isolators have also been investigated for use in up to 250 V, 50/60 Hz circuits in audio, video, and similar equipment in applications in which breakdown of the optical isolator may result in a risk of fire, electrical shock, or injury to persons.
5. If the maximum operating (ambient) temperature exceeds the rating noted in the ratings table, additional means should be used to determine if the maximum junction temperature of the device is exceeded.

File E214129
Project 09CA63111

August 26, 2010

Revised: July 14, 2011
REPORT

on

*COMPONENT - OPTICAL ISOLATORS

Everlight Electronics Co Ltd
TAIPEI, TAIWAN

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DESCRIPTION

PRODUCT COVERED:

USR, CNR - Double Protection, Optical Isolator, Models EL451, EL452, EL053L, **EL0530, EL0531**, EL0533, EL0551, EL063A, EL063L, EL063N, EL0630, EL0631, EL0661, EL0730, EL0731, ELM314, ELM452, ELM452L, ELM453, ELM453L, ELM454, ELM600, ELM600L, ELM601, ELM601L, ELM611, ELM611L, ELM3010, ELM3011, ELM3012, ELM3013, ELM3014, ELM3020, ELM3021, ELM3022, ELM3023, ELM3024, ELM3030, ELM3031, ELM3032, ELM3033, ELM3034, EL3040, ELM3041, ELM3042, ELM3043, ELM3044, ELM3050, ELM3051, ELM3052, ELM3053, ELM3054, ELM3060, ELM3061, ELM3062, ELM3063, ELM3064, ELM3070, ELM3071, ELM3072, ELM3073, ELM3074, ELM3080, ELM3081, ELM3082, ELM3083, ELM3084.

All models may be followed by any letters or numbers.

MAXIMUM RATINGS (at nominal operating temperature):

Model	Current (mA)		Power (mW)		Isolation Voltage	Max Operating (Ambient) Temp (°C)	Max Junction Temp (°C)	Max Storage Temp (°C)
	Emitter	Sensor	Emitter	Sensor				
EL451	80	100	150	300	3750	110	125	150
EL452	60	150	100	300	3750	110	125	150
EL0551	25	8	45	100	3750	100	125	125
EL053L	25	8	45	100	3750	100	125	125
EL0530	25	8	45	100	3750	100	125	125
EL0531	25	8	45	100	3750	100	125	125
EL0533	25	8	45	100	3750	100	125	125
EL063A	20	50	40	85	3750	100	125	125
EL063L	20	50	40	85	3750	100	125	125
EL063N	20	50	40	85	3750	100	125	125
EL0630	20	50	40	85	3750	100	125	125
EL0631	20	50	40	85	3750	100	125	125
EL0730	20	60	35	100	3750	100	125	125
EL0731	20	60	35	100	3750	100	125	125
ELM3010	60	100	100	300	3750	110	125	150
ELM3011	60	100	100	300	3750	110	125	150
ELM3012	60	100	100	300	3750	110	125	150
ELM3013	60	100	100	300	3750	110	125	150
ELM3014	60	100	100	300	3750	110	125	150
ELM3020	60	100	100	300	3750	110	125	150
ELM3021	60	100	100	300	3750	110	125	150
ELM3022	60	100	100	300	3750	110	125	150
ELM3023	60	100	100	300	3750	110	125	150
ELM3024	60	100	100	300	3750	110	125	150
ELM3050	60	100	100	300	3750	110	125	150
ELM3051	60	100	100	300	3750	110	125	150

Model	Current (mA)		Power (mW)		Isolation Voltage	Max Operating (Ambient) Temp (°C)	Max Junction Temp (°C)	Max Storage Temp (°C)
	Emitter	Sensor	Emitter	Sensor				
ELM3052	60	100	100	300	3750	110	125	150
ELM3053	60	100	100	300	3750	110	125	150
ELM3054	60	100	100	300	3750	110	125	150
ELM3030	60	100	100	300	3750	110	125	150
ELM3031	60	100	100	300	3750	110	125	150
ELM3032	60	100	100	300	3750	110	125	150
ELM3033	60	100	100	300	3750	110	125	150
ELM3034	60	100	100	300	3750	110	125	150
ELM3040	60	100	100	300	3750	110	125	150
ELM3041	60	100	100	300	3750	110	125	150
ELM3042	60	100	100	300	3750	110	125	150
ELM3043	60	100	100	300	3750	110	125	150
ELM3044	60	100	100	300	3750	110	125	150
ELM3060	60	100	100	300	3750	110	125	150
ELM3061	60	100	100	300	3750	110	125	150
ELM3062	60	100	100	300	3750	110	125	150
ELM3063	60	100	100	300	3750	110	125	150
ELM3064	60	100	100	300	3750	110	125	150
ELM3070	60	100	100	300	3750	110	125	150
ELM3071	60	100	100	300	3750	110	125	150
ELM3072	60	100	100	300	3750	110	125	150
ELM3073	60	100	100	300	3750	110	125	150
ELM3074	60	100	100	300	3750	110	125	150
ELM3080	60	100	100	300	3750	110	125	150
ELM3081	60	100	100	300	3750	110	125	150
ELM3082	60	100	100	300	3750	110	125	150
ELM3083	60	100	100	300	3750	110	125	150
ELM3084	60	100	100	300	3750	110	125	150
ELM314	60	100	100	300	3750	110	125	150
ELM452, ELM452L, ELM453, ELM453L	50	16	45	100	3750	100	125	125
ELM454	50	16	45	100	3750	100	125	125
ELM600, ELM600L, ELM601, ELM601L, ELM611, ELM611L	50	50	100	85	3750	100	125	125

GENERAL:

These devices are photocoupled isolators consisting of a photo-emitter such as a light emitting diode, optically coupled to a photo-sensor, such as a transistor. The emitter and sensor are separated by an insulating window. Internal "chips" are connected to lead frames that are molded into the enclosure.

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Use - For use only in products where the acceptability of the combination is determined by Underwriters Laboratories Inc.

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

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

File E214129
Project 10CA27658

September 17, 2010

REPORT

On

COMPONENT - OPTICAL ISOLATORS - COMPONENT

Everlight Electronics Co Ltd
Taipei, Taiwan

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DESCRIPTION

PRODUCT COVERED:

USR, CNR - Double Protection Optical Isolator, Models ELR3202, ELR3203, ELR3212, ELR3213, ELR3222, ELR3223, ELR3232, ELR3233, ELR3502, ELR3503, ELR3512, ELR3513, ELR3522, ELR3523, ELR3532, ELR3533, ELR3702, ELR3703, ELR3712, ELR3713, ELR3722, ELR3723, ELR3732, ELR3733.

USR, CNR - Double Protection Optical Isolator, Models ELR3402, ELR3403, ELR3412, ELR3413, ELR3422, ELR3423, ELR3432, ELR3433, ELR3602, ELR3603, ELR3612, ELR3613, ELR3622, ELR3623, ELR3632, ELR3633, ELR3802, ELR3803, ELR3812, ELR3813, ELR3822, ELR3823, ELR3832, ELR3833.

MAXIMUM RATINGS (at nominal operating temperature):

Model	Current (mA)		Power (mW)		Isolation Voltage (Vac)	Max Operating (Ambient) Temp (°C)	Max Junction Temp (°C)	Max Storage Temp (°C)
	Emitter	Sensor	Emitter	Sensor				
ELR3202, ELR3203, ELR3212, ELR3213, ELR3222, ELR3223, ELR3232, ELR3233, ELR3502, ELR3503, ELR3512, ELR3513, ELR3522, ELR3523, ELR3532, ELR3533, ELR3702, ELR3703, ELR3712, ELR3713, ELR3722, ELR3723, ELR3732, ELR3733	60	1200	100	2000	5000	100	125	125
ELR3402, ELR3403, ELR3412, ELR3413, ELR3422, ELR3423, ELR3432, ELR3433, ELR3602, ELR3603, ELR3612, ELR3613, ELR3622, ELR3623, ELR3632, ELR3633, ELR3802, ELR3803, ELR3812, ELR3813, ELR3822, ELR3823, ELR3832, ELR3833	60	1200	100	2000	5000	100	125	125

GENERAL:

These devices are photocoupled isolators consisting of a photo-emitter such as a light emitting diode, optically coupled to a photo-sensor, such as a transistor. The emitter and sensor are separated by an insulating window. Internal "chips" are connected to lead frames that are molded into the enclosure.

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Use - For use only in products where the acceptability of the combination is determined by Underwriters Laboratories Inc.

USR indicates this product was investigated under the UL Standard for Safety for Optical Isolators, UL 1577, Fourth Edition last revised January 20, 2010.

CNR indicates this product was investigated under the Canadian Certification Notice, CSA Component Acceptance Service No. 5A dated January 23, 1998.

File E214129
Project 11CA21212

September 02, 2011

REPORT

On

COMPONENT - OPTICAL ISOLATORS

Everlight Electronics Co Ltd
Taipei, Taiwan

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GENERAL:

These devices are photocoupled isolators consisting of a photo-emitter such as a light emitting diode, optically coupled to a photo-sensor, such as a transistor. The emitter and sensor are separated by an insulating window. Internal "chips" are connected to lead frames that are molded into the enclosure.

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Use - For use only in products where the acceptability of the combination is determined by Underwriters Laboratories Inc.

USR indicates this product was investigated under the UL Standard for Safety for Optical Isolators, UL 1577, Fourth Edition last revised January 20, 2010.

CNR indicates this product was investigated under the Canadian Certification Notice, CSA Component Acceptance Service No. 5A dated January 23, 1998.

File E214129
Project 11CA38812

February 22, 2012

REPORT

ON

COMPONENT - OPTICAL ISOLATORS

Everlight Electronics Co Ltd
TUCHENG, TAIPEI, TAIWAN

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DESCRIPTION

PRODUCT COVERED:

USR, CNR - Double Protection Optical Isolator, Models EL3120, EL3140, EL3150, EL3180, EL3184, EL406X, EL410X, EL420X, EL425X, EL435X, EL440X, EL460X, EL606X, EL610X, EL620X, EL625X, EL635X, EL640X, EL660X, **EL806A, EL810A, EL820A, EL825A, EL835A, EL840A, EL860A** where X may be A or B. All models may be followed by any letters or numbers, except A or B.

*MAXIMUM RATINGS (per channel at room temperature):

Model	Current (mA)		Power (mW)		Isolation Voltage (Vrms)	Max Operating Temp (°C)	Max Junction Temp (°C)	Max Storage Temp (°C)
	Emitter	Sensor	Emitter	Sensor				
EL3120	50	3000#	100	300	5000	110	125	125
EL3140	50	3000#	100	300	5000	110	125	125
EL3150	50	3000#	100	300	5000	110	125	125
EL3180	50	3000#	100	300	5000	110	125	125
EL3184	50	3000#	100	300	5000	110	125	125
EL406X	50	550	75	500	5000	85	125	125
EL410X	50	320	75	500	5000	85	125	125
EL420X	50	180	75	500	5000	85	125	125
EL425X	50	150	75	500	5000	85	125	125
EL435X	50	130	75	500	5000	85	125	125
EL440X	50	120	75	500	5000	85	125	125
EL460X	50	50	75	500	5000	85	125	125
EL606X	50	550	75	500	5000	85	125	125
EL610X	50	320	75	500	5000	85	125	125
EL620X	50	180	75	500	5000	85	125	125
EL625X	50	150	75	500	5000	85	125	125
EL635X	50	130	75	500	5000	85	125	125
EL640X	50	120	75	500	5000	85	125	125
EL660X	50	50	75	500	5000	85	125	125
EL806A	50	550	75	500	5000	85	125	125
EL810A	50	320	75	500	5000	85	125	125
EL820A	50	180	75	500	5000	85	125	125
EL825A	50	150	75	500	5000	85	125	125
EL835A	50	130	75	500	5000	85	125	125
EL840A	50	120	75	500	5000	85	125	125
EL860A	50	50	75	500	5000	85	125	125

Note: This is the client's declared peak value of the output current at a maximum pulse width of 10 μ s with maximum duty cycle of 1.1%.

GENERAL:

These devices are photocoupled isolators consisting of a photo-emitter such as a light emitting diode, optically coupled to a photo-sensor, such as a transistor. The emitter and sensor are separated by an insulating window. Internal "chips" are connected to lead frames that are molded into the enclosure.

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Use - For use only in products where the acceptability of the combination is determined by Underwriters Laboratories Inc.

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. If the maximum operating (ambient) temperature exceeds the rating noted in the ratings table, additional means should be used to determine if the maximum junction temperature of the device is 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. In addition to meeting single protection requirements, double protection optical isolators have also been investigated for use in up to 250 V, 50/60 Hz circuits in audio, video, and similar equipment in applications in which breakdown of the optical isolator may result in a risk of fire, electrical shock, or injury to persons.
6. For Models EL3120, EL3140, EL3150, EL3180, and EL3184, the output current values specified in this report are the client's declared peak values of the output current at a maximum pulse width of 10 μ s at maximum duty cycle of 1.1%. The suitability of using these devices shall be considered in the end applications.