EVERLIGHT AMERICAS

DATASHEET

Top view LED
EAPL3528RGA3

Features

- P-LCC-4 package
- Optical indicator
- Colorless clear window
- Ideal for backlight and light pipe application
- Inter reflector
- Wide viewing angle
- Suitable for vapor-phase reflow .
- Computable with automatic placement equipment
- Available on tape and reel (8mm Tape)
- Pb-free
- The product itself will remain within RoHS compliant version

Descriptions

The EAPL3528RGA3 series is available in soft orange, green,blue and yellow. Due to the package design, the LED has wide viewing angle and optimized light coupling by inter reflector. This feature makes ideal for light pipe application. The low current requirement makes this device ideal for portable equipment or any other application where power is at a premium.

Applications

- Telecommunication: indicator and backlighting in telephone and fax
- Flat backlight for LCD's, switches and symbols
- Light pipe application
- General use

Device Selection Guide

Chip			Resin Color
Type	Material	Emitted Color	
B8	AlGaInP	Deep - Red	Water Clear
G6	AlGaInP	Brilliant Yellow Green	

Bin Range of Luminous Intensity

Symbol	Bin Code	Min.	Max.	Unit	Condition
R8	G1	1.80	2.30	mcd	I_F=2mA
	G2	2.30	2.80		
	H1	2.80	3.60		
	H2	3.60	4.50		
	J1	4.50	5.80		
G6	G1	1.80	2.30		
	G2	2.30	2.80		
	H1	2.80	3.60		
	H2	3.60	4.50		

Bin Range of Dominant Wavelength

Symbol	Bin Code	Min.	Max.	Unit	Condition
R8	FF4	636	641	nm	I_F=2mA
	FF5	641	646		
G6	C15	567.5	569.5		
	C16	569.5	571.5		
	C17	571.5	573.5		
	C18	573.5	575.5		

Notes:

1.Tolerance of Luminous Intensity ±11%

2.Tolerance of Dominant Wavelength ±1nm

Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol		Rating	Unit
Reverse Voltage	V_R		5	V
Forward Current	I_F	R8	25	mA
		G6	25	
Peak Forward Current (Duty 1/10 @ 1KHz)	I_{FP}	R8	60	mA
		G6	60	
Power Dissipation	Pd	R8	60	mW
		G6	60	
Electrostatic Discharge(HBM)	ESD		2000	V
Operating Temperature	Topr		-40 ~ +85	℃
Storage Temperature	Tstg		-40~ +90	℃
Soldering Temperature	Tsol		Reflow Soldering : 260 ℃ for 10 sec. Hand Soldering : 350 ℃ for 3 sec.	

Electro-Optical Characteristics (Ta=25℃)

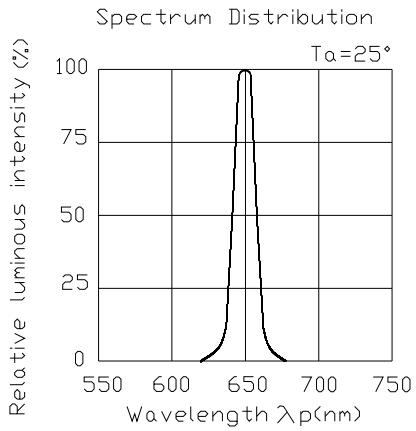
Parameter	Symbol		Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I_V	R8	1.8	-----	5.8	mcd	I_F=2mA
		G6	1.8	-----	4.5		
Peak Wavelength	λp	R8	-----	650	-----	nm	
		G6	-----	575	-----		
Dominant Wavelength	λd	R8	636	-----	646	nm	
		G6	567.5	-----	575.5		
Spectrum Radiation Bandwidth	△λ	R8	-----	20	-----	nm	
		G6	-----	20	-----		
Forward Voltage	V_F	R8	-----	2.0	2.4	V	
		G6	-----	2.0	2.4		
Viewing Angle	2θ1/2		-----	120	-----	deg	
Reverse Current	I_R		-----	-----	10	μA	V_R=5V

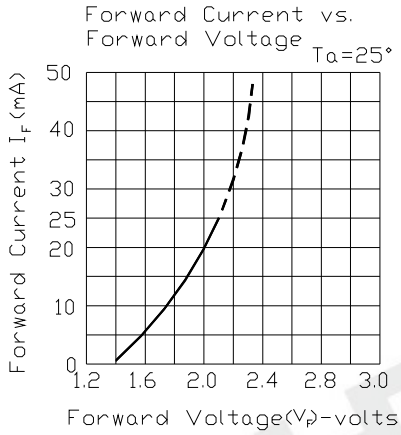
Notes:

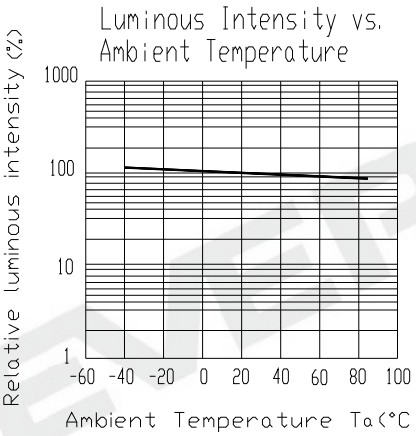
1.Tolerance of Luminous Intensity ±11%

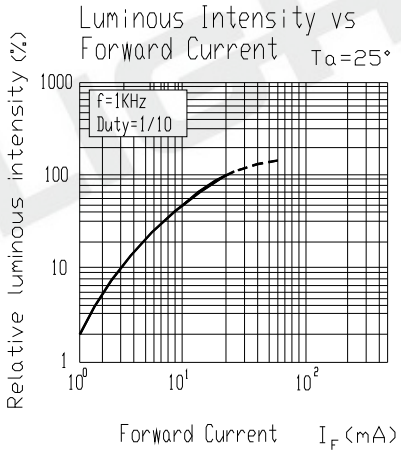
2.Tolerance of Dominant Wavelength ±1.0nm

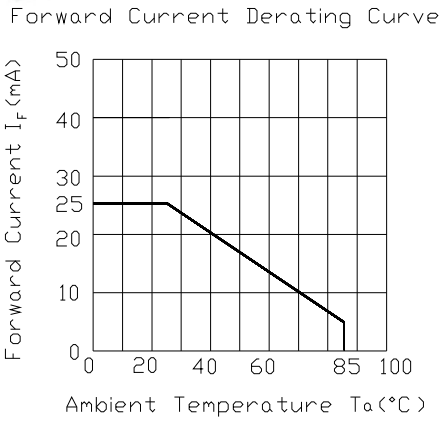
Typical Electro-Optical Characteristics Curves(R8)

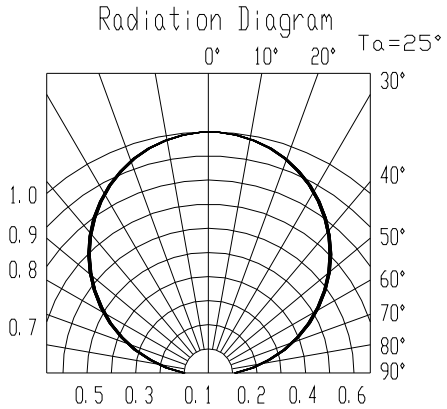




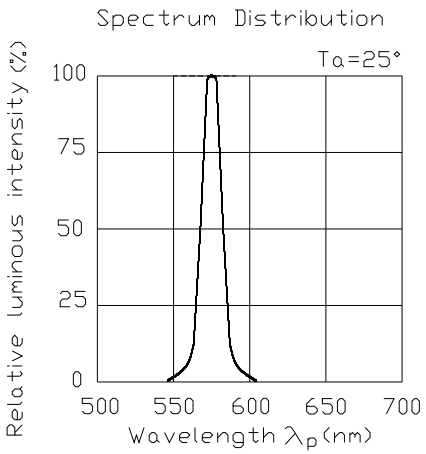


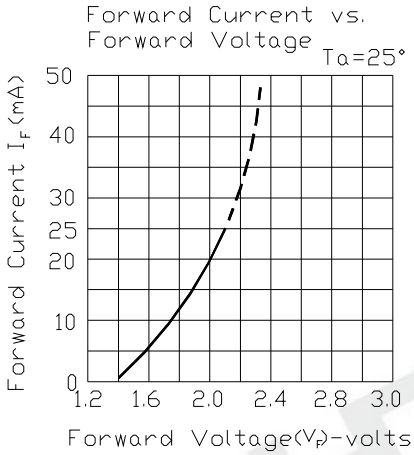


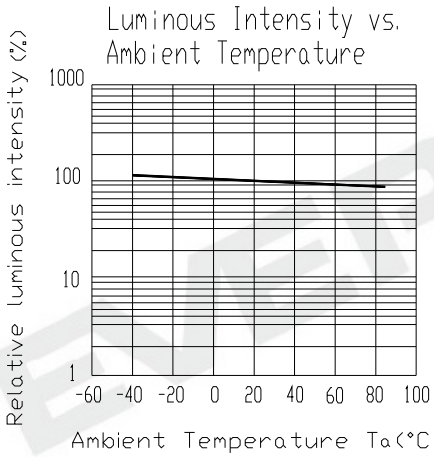


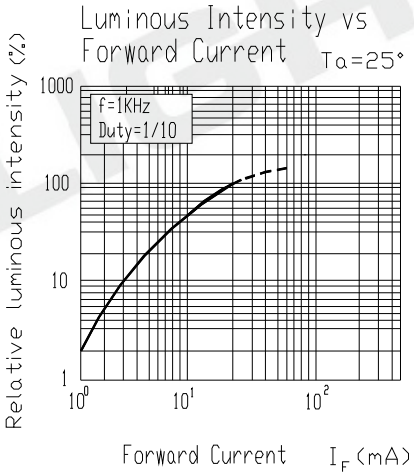


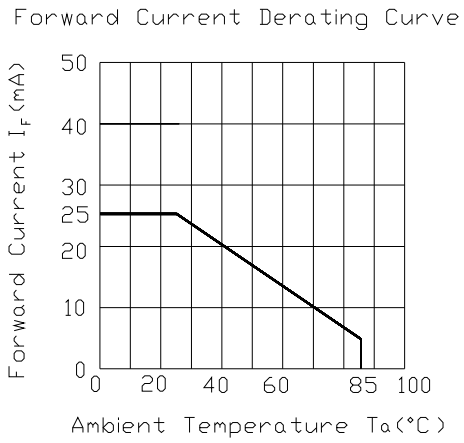
Typical Electro-Optical Characteristics Curves(G6)

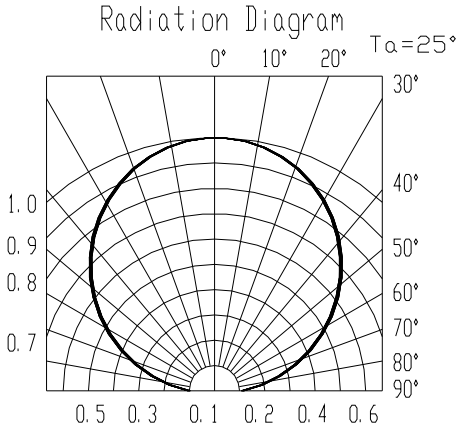




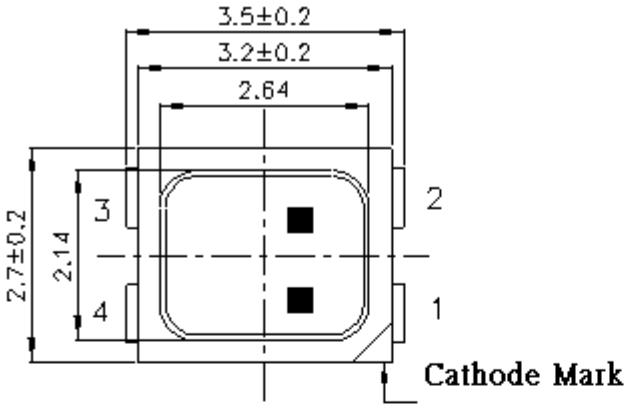


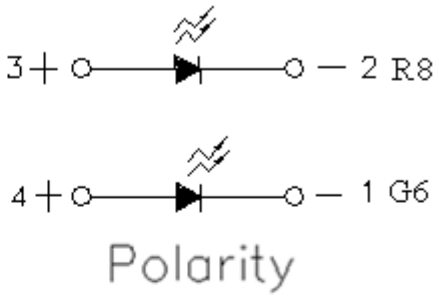


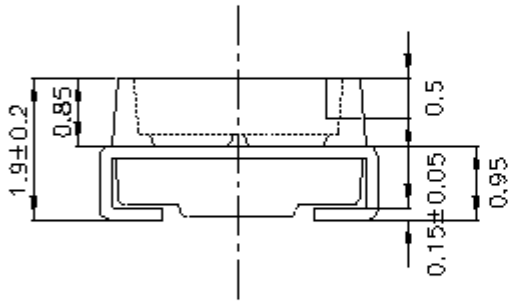


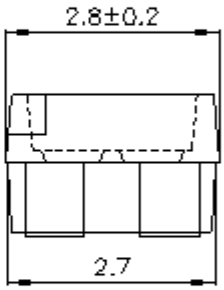


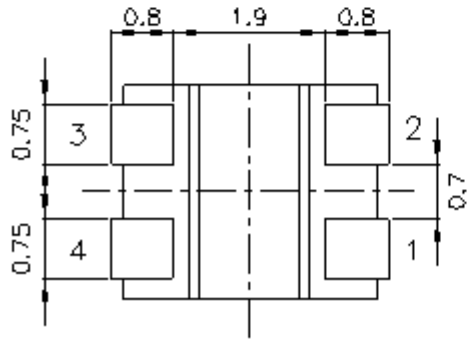
Package Dimensions

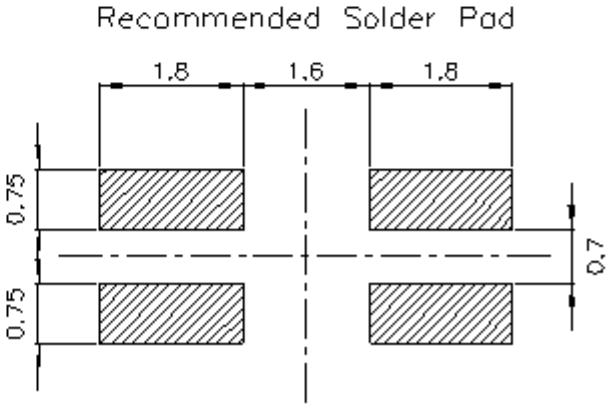








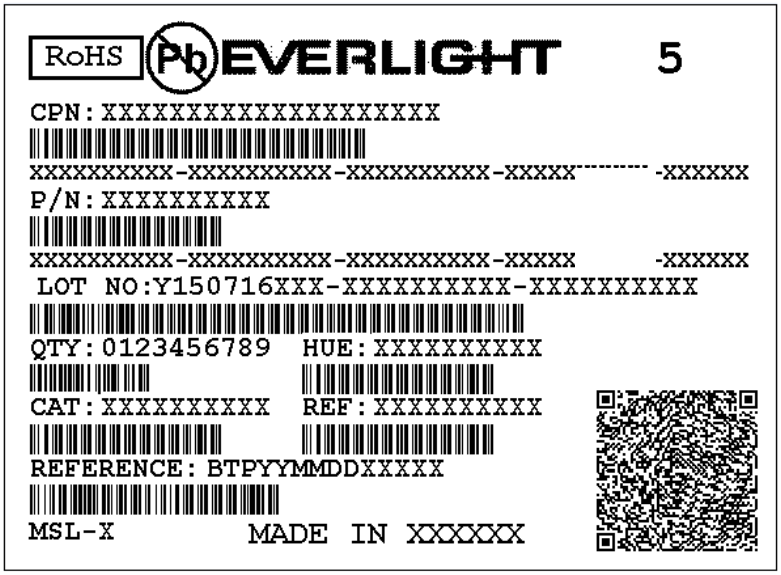




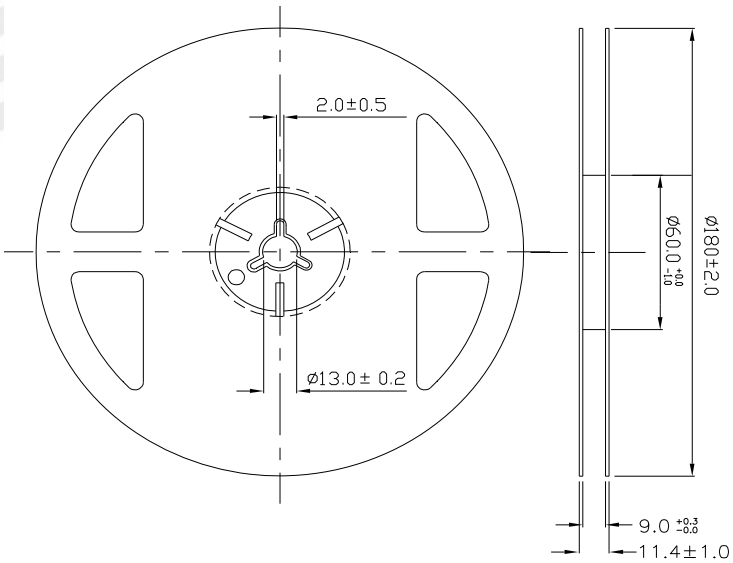
Note: The tolerances unless mentioned is ±0.1mm ;Unit = mm

Label Explanation

CAT: Luminous Intensity Rank
HUE: Chromaticity Coordinates
REF: Forward Voltage Rank

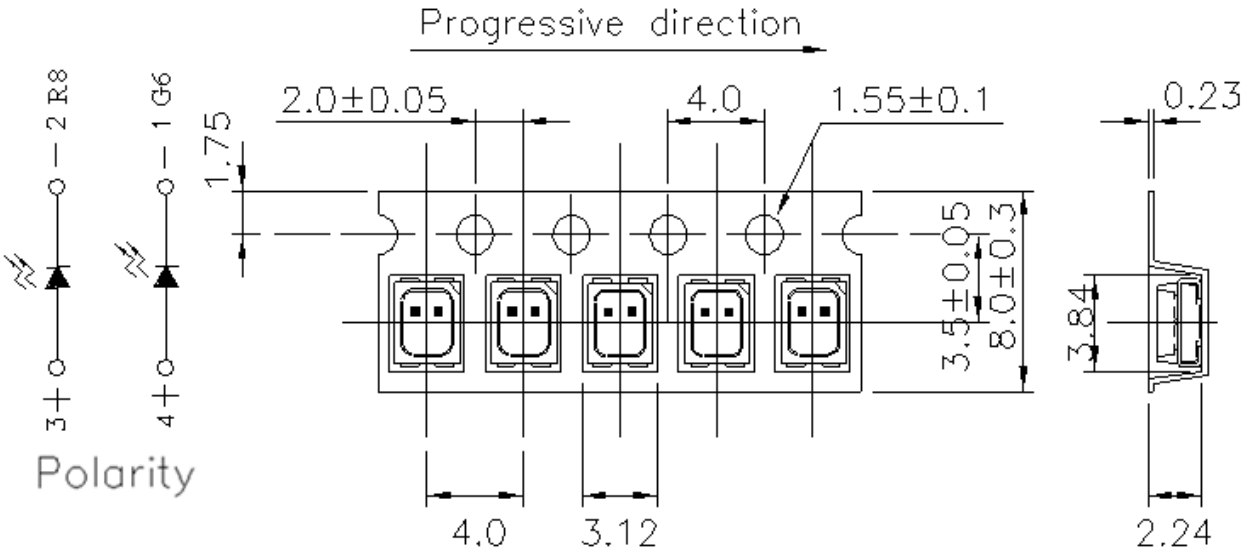


Reel Dimensions



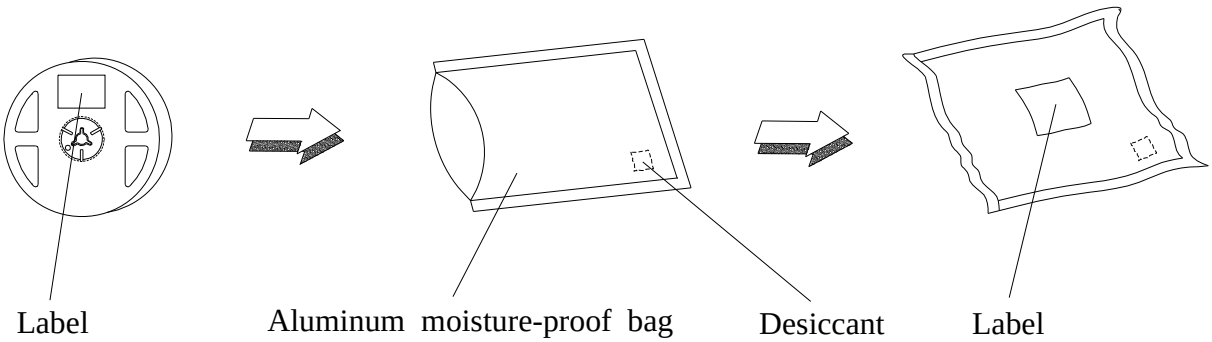
Note: The tolerances unless mentioned is ±0.1mm ,Unit = mm

Carrier Tape Dimensions: Loaded quantity 2000 PCS per reel.



Note: The tolerances unless mentioned is ±0.1mm ,Unit = mm

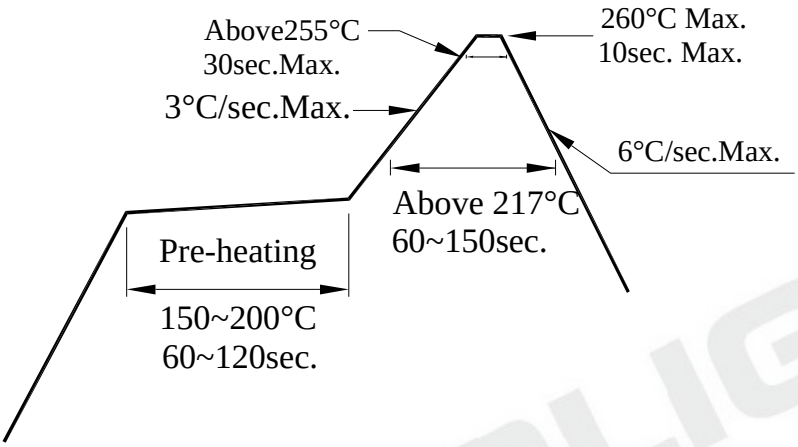
Moisture Resistant Packaging



Precautions for Use

1. Over-current-proof

1.1 Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change (Burn out will happen).



2. Storage

2.1 Moisture proof bag should only be opened immediately prior to usage.

2.2 Environment should be less than 30℃ and 60% RH when moisture proof bag is opened.

2.3 After opening the package MSL Conditions stated on page 1 of this spec should not be exceeded.

2.4 If the moisture sensitivity card indicates higher than acceptable moisture, the component should be baked at min. 60deg +/-5deg for 24 hours.

3. Soldering Condition

3.1 Pb-free solder temperature profile

3.2 Reflow soldering should not be done more than two times.

3.3 When soldering, do not put stress on the LEDs during heating.

3.4 After soldering, do not warp the circuit board.

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4. Soldering Iron

Each terminal is to go to the tip of soldering iron temperature less than 350℃ for 3 seconds within once in less than the soldering iron capacity 25W. Leave two seconds and more intervals, and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand solder.

5. Repairing

Repair should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used (as below figure). It should be confirmed beforehand whether the characteristics of the LEDs will or will not be damaged by repairing.

Application Restrictions

High reliability applications such as military/aerospace, automotive safety/security systems, and medical equipment may require different product. If you have any concerns, please contact Everlight before using this product in your application. This specification guarantees the quality and performance of the product as an individual component. Do not use this product beyond the specification described in this document.

DISCLAIMER

1. EVERLIGHT reserves the right(s) on the adjustment of product material mix for the specification.
2. The product meets EVERLIGHT published specification for a period of twelve (12) months from date of shipment.
3. The graphs shown in this datasheet are representing typical data only and do not show guaranteed values.
4. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from the use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
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