

Technical Data Sheet

Top View LEDs

67-22/R6G6C-B03/2T

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 67-22 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

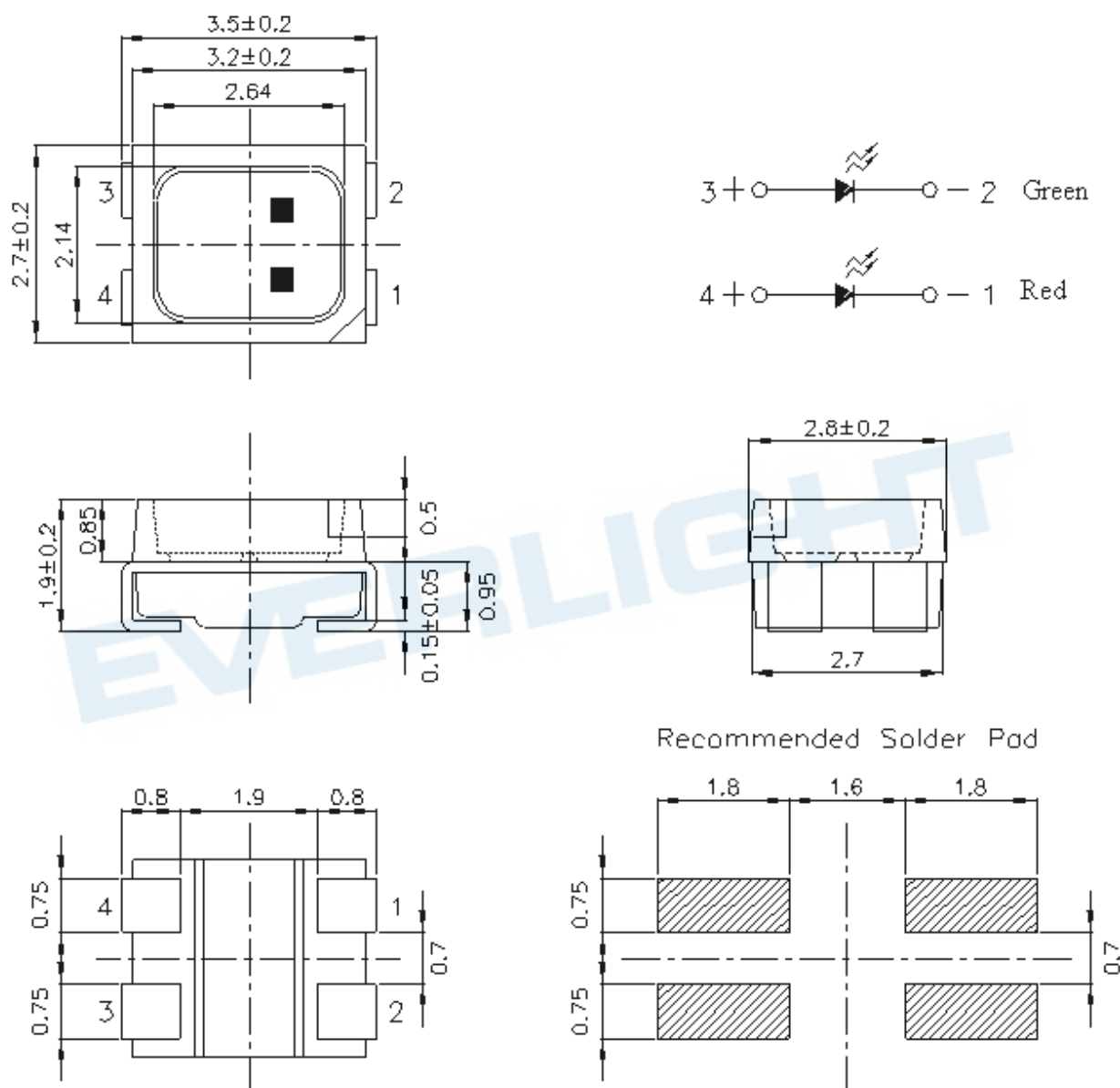
Chip		Emitted Color	Resin Color
Type	Material		
R6	AlGaInP	Brilliant Red	Water Clear
G6	AlGaInP	Brilliant Yellow Green	

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Package Dimensions



Note: The tolerance unless mentioned is ± 0.1 mm.

Technical Data Sheet**Top View LEDs****67-22/R6G6C-B03/2T****Absolute Maximum Ratings (Ta=25°C)**

Parameter	Symbol		Rating	Unit
Reverse Voltage	V_R		5	V
Forward Current	I_F	R6	50	mA
		G6	50	
Peak Forward Current(Duty 1/10 @ 1KHz)	I_{FP}	R6	100	mA
		G6	80	
Power Dissipation	P_d	R6	120	mW
		G6	100	
Electrostatic Discharge(HBM)	ESD	R6	2000	V
		G6	2000	
Operating Temperature	T_{opr}		-40 ~ +85	°C
Storage Temperature	T_{stg}		-40~ +95	°C
Soldering Temperature	T_{sol}		Reflow soldering : 260 °C for 10 sec. Hand soldering : 350 °C for 3 sec.	

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Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol		Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I _v	R6	36	-----	72	mcd	I _F =10mA
		G6	22.5	-----	45		
Viewing Angle	2θ1/2		-----	120	-----	deg	
Peak Wavelength	λ _p	R6	-----	632	-----	nm	
		G6	-----	575	-----		
Dominant Wavelength	λ _d	R6	621.5	-----	629.5	nm	
		G6	569.5	-----	575.5		
Spectrum Radiation Bandwidth	Δ λ	R6	-----	20	-----	nm	
		G6	-----	20	-----		
Forward Voltage	V _F	R6	1.7	-----	2.4	V	
		G6	1.7	-----	2.4		
Reverse Current	I _R	R6	-----	-----	10	μA	V _R =5V
		G6					

Notes:

1. Tolerance of Luminous Intensity : ±11%
2. Tolerance of Dominant Wavelength : ±1nm
3. Tolerance of Forward Voltage : ±0.1V

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Bin Range of Luminous Intensity

Symbol	Bin Code	Min.	Max.	Unit	Condition
R6	N2	36	45	mcd	I _F =10mA
	P1	45	57		
	P2	57	72		
G6	M2	22.5	28.5		
	N1	28.5	36		
	N2	36	45		

Bin Range of Dominant Wavelength

Symbol	Bin Code	Min.	Max.	Unit	Condition
R6	E5	621.5	626.0	nm	I _F =10mA
	E6	626.0	629.5		
G6	C16	569.5	571.5		
	C17	571.5	573.5		
	C18	573.5	575.5		

Notes:

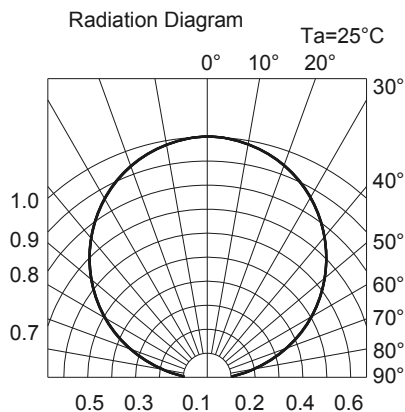
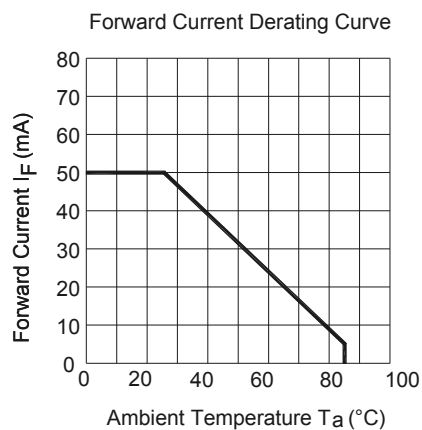
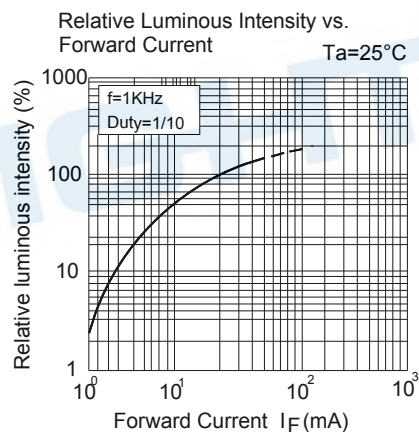
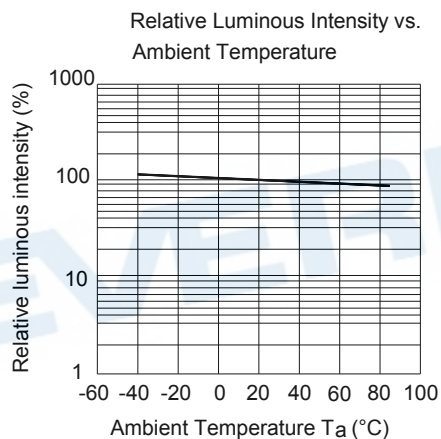
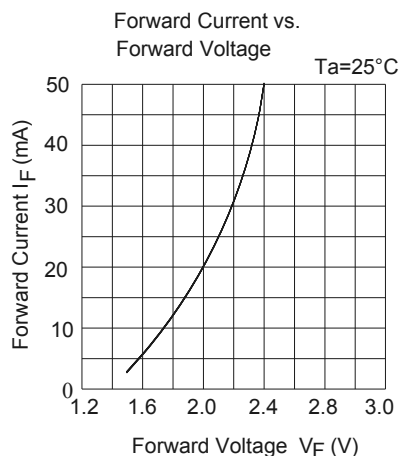
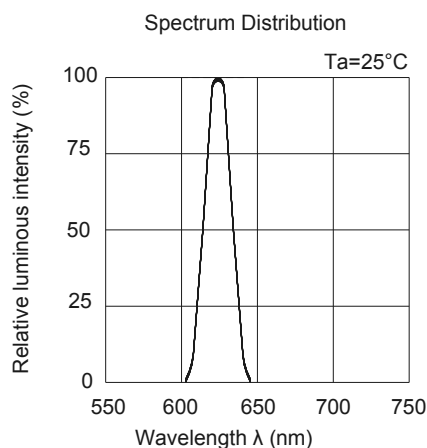
1. Tolerance of Luminous Intensity : $\pm 11\%$
2. Tolerance of Dominant Wavelength : $\pm 1\text{nm}$

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Typical Electro-Optical Characteristics Curve (R6)

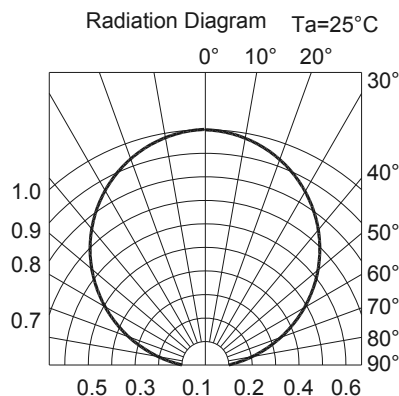
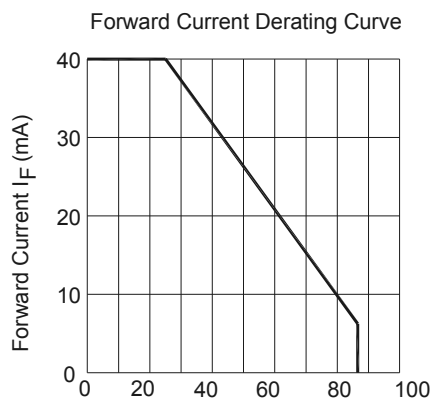
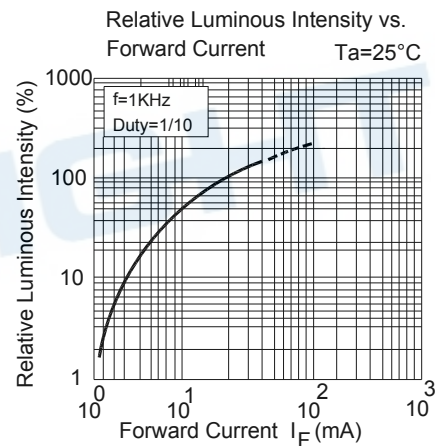
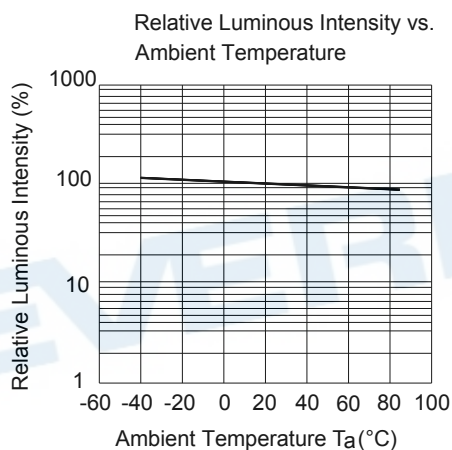
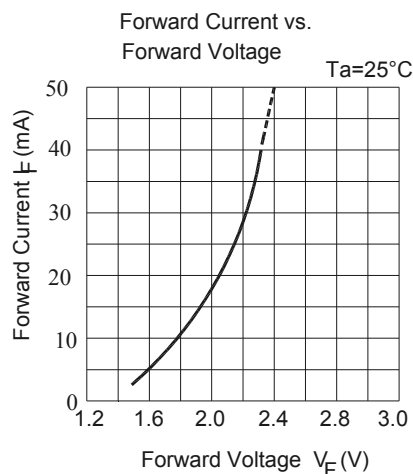
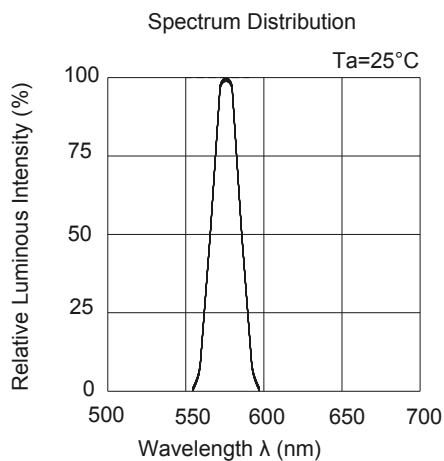


Typical Electro-Optical Characteristics Curves (G6)

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Label Explanation

Everlight Electronics Co., Ltd.

<http://www.everlight.co>

Device No. : DSE-0000660

Prepared date : 20-Feb.

Ver.:4 Release Date:03/09/2017 狀態:Approved(正式器件)

			CPN : P/N : XXXXXXXXXXXXXXXX
			QTY : XXX CAT : XXX

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Top View LEDs

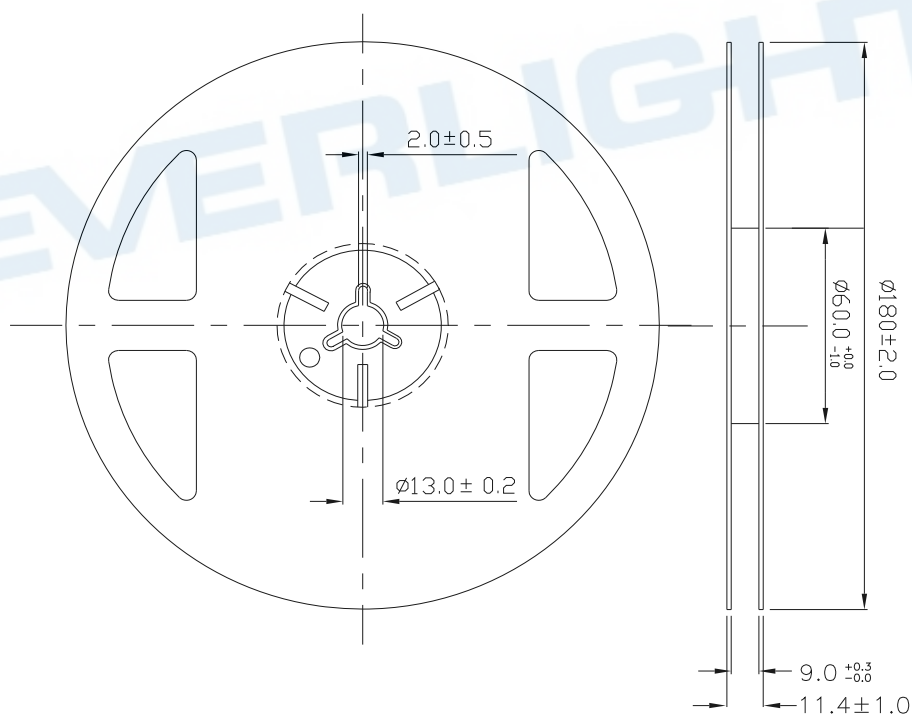
67-22/R6G6C-B03/2T

CAT: Luminous Intensity Rank

HUE: Dom. Wavelength Rank

REF: Forward Voltage Rank

Reel Dimensions



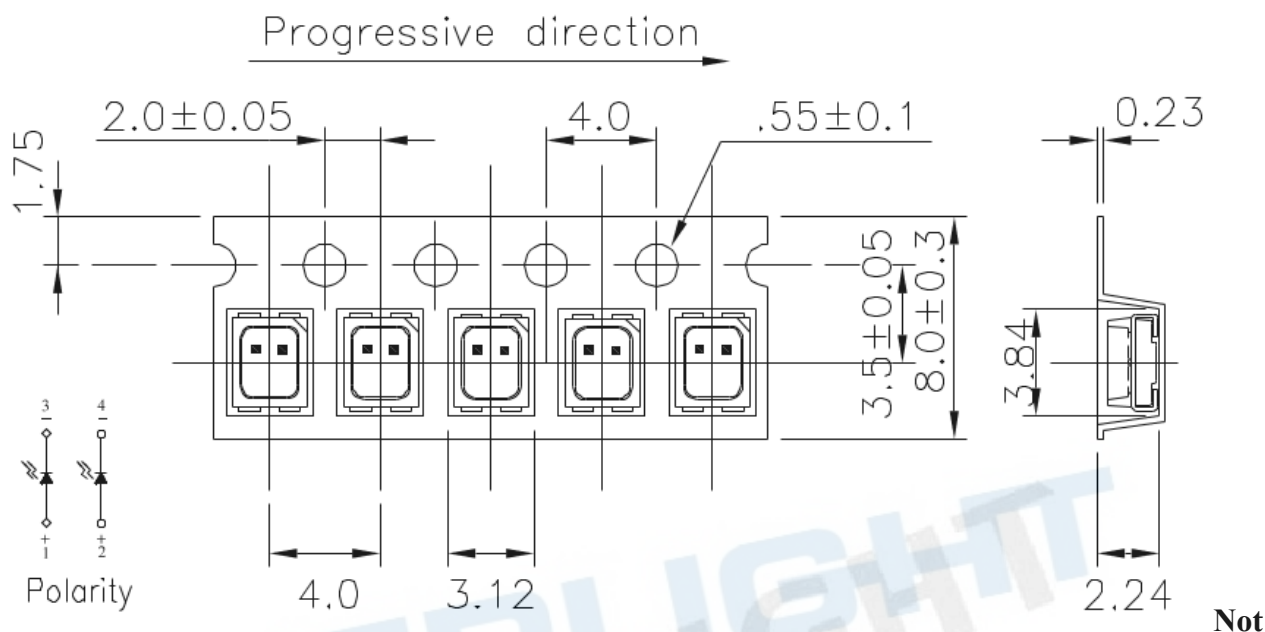
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Top View LEDs

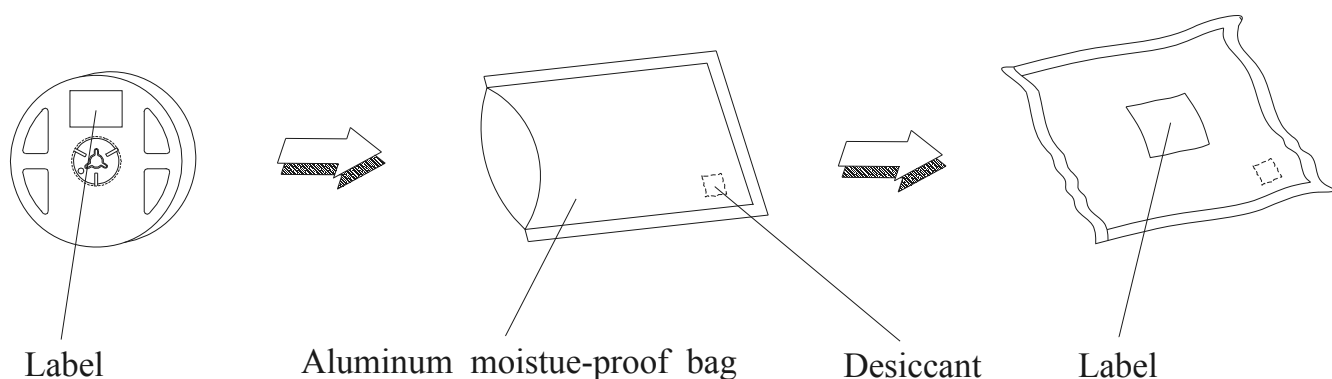
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Carrier Tape Dimensions: Loaded Quantity 2000 pcs. Per Reel



e: The tolerance unless mentioned is ± 0.1 mm.

Moisture Resistant Packaging



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The reliability of products shall be satisfied with items listed below.

Confidence level : 90%

LTPD : 10%

No.	Items	Test Condition	Test Hours/Cycles	Sample Size	Ac/Re
1	Reflow Soldering	Temp. : 260°C±5°C Max. 10 sec.	6 Min.	22 PCS.	0/1
2	Temperature Cycle	H : +100°C 15min └ 5 min L : -40°C 15min	300 Cycles	22 PCS.	0/1
3	Thermal Shock	H : +100°C 5min └ 10 sec L : -10°C 5min	300 Cycles	22 PCS.	0/1
4	High Temperature Storage	Temp. : 100°C	1000 Hrs.	22 PCS.	0/1
5	Low Temperature Storage	Temp. : -40°C	1000 Hrs.	22 PCS.	0/1
6	DC Operating Life	I _F = 20 mA	1000 Hrs.	22 PCS.	0/1
7	High Temperature / High Humidity	85°C/85%RH.	1000 Hrs.	22 PCS.	0/1

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Precautions for Use

1. Over-current-proof

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

2. Storage

2.1 Do not open moisture proof bag before the products are ready to use.

2.2 Before opening the package, the LEDs should be kept at 30°C or less and 90%RH or less.

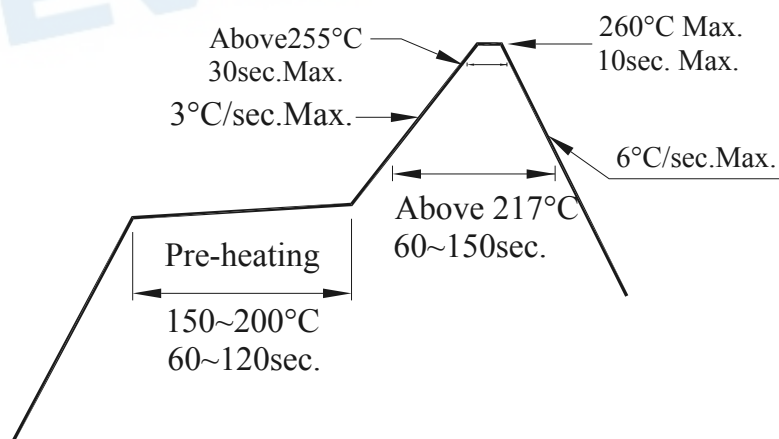
2.3 After opening the package: The LED's floor life is 168 hours under 30°C or less and 60% RH or less.
If unused LEDs remain, it should be stored in moisture proof packages.

2.4 If the moisture absorbent material (silica gel) has faded away or the LEDs have exceeded the storage time, baking treatment should be performed using the following conditions.

Baking treatment : 60±5°C 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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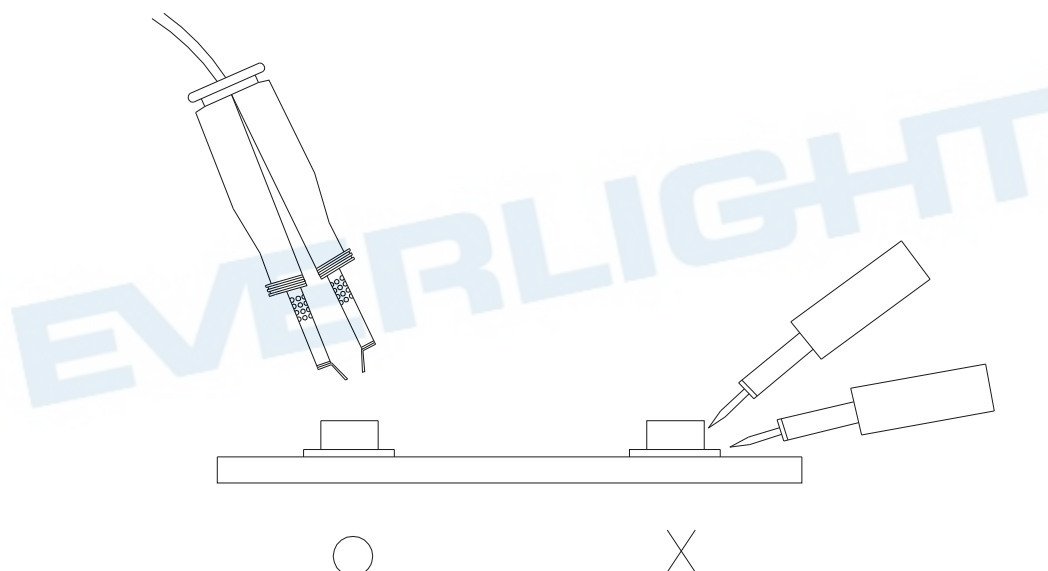
67-22/R6G6C-B03/2T

4. Soldering Iron

Each terminal is to go to the tip of soldering iron temperature less than 350°C 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.



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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.
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