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SPECIFICATION

PART NO. : LT8A63-66-RGB-GZ27

0606 SMD CHIP LED



Approved by

Checked by

Prepared by

Yue

Lian

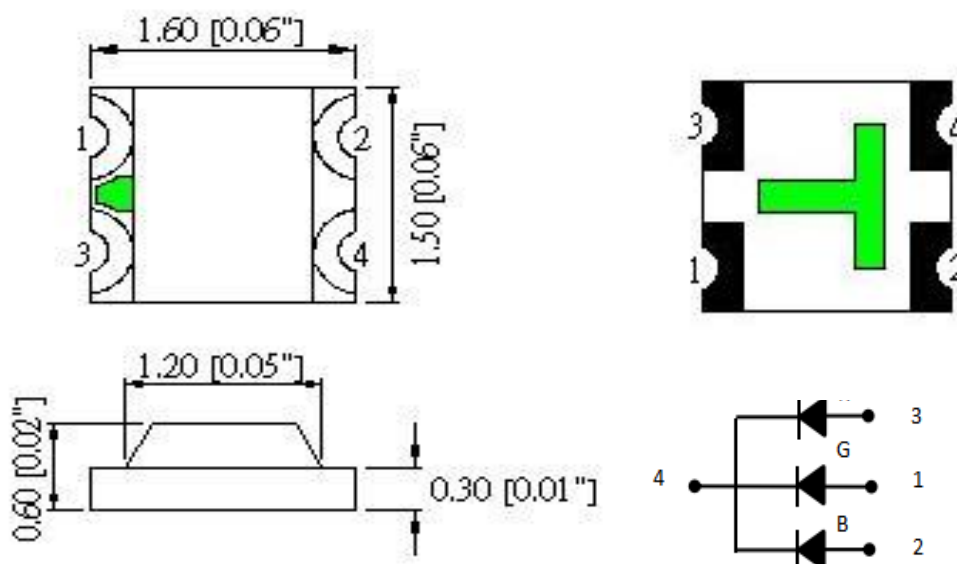
Rong

※ Features

1. Outline Package: 1.6*1.5*0.6mm (Chip View Red and Green and Blue LED)
2. Emitted Color: Red and Green and Blue
3. Lens Appearance: Water Clear
3. Comply with RoHS
4. PACKAGE:4000PCS / REEL.

※ Applications

1. Optical indicators
2. LCD Backlighting
3. mobile telephone keypad lights

Package Dimensions**Notes:**

1. All dimensions are in mm.
2. Tolerance is ± 0.2 mm unless otherwise noted.

Absolute Maximum Ratings at Ta=25 °C

Parameter	Symbol	Value	Unit
Power dissipation	Pd	44	mW
Forward current	If	20	mA
Reverse voltage	Vr	5	V
Operating temperature range	Top	-40 ~+85	°C
Storage temperature range	Tstg	-40~+100	°C
Soldering Temperature	Tsol	Max.260°C for 3 sec Max.	
Peak pulsing current	Ifp	100	mA
Electrostatic Discharge	ESD	2000(HBM)	V

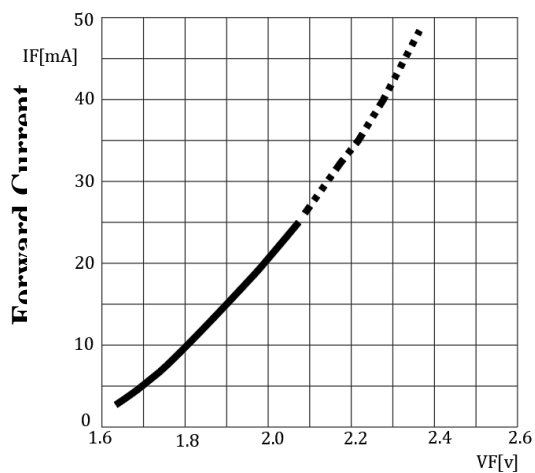
Electrical and Optical Characteristics:

Parameter	Test Condition	Symbol	Value			Unit
			Min.	Typ.	Max.	
Forward voltage	If=20mA	Red	1.8	---	2.4	V
		Green	2.8	---	3.4	V
		Blue	2.8	---	3.4	V
Reverse current	VR =5V		---	---	1	μ A
Dominate Wavelength	If=20mA	Red	615	---	625	
		Green	525	---	530	nm
		Blue	465	---	475	
Luminous intensity	If=20mA	Red	200	360		
		Green	400	600		mcd
		Blue	100	180		
Viewing angle at 50% Iv	If=20mA		---	120	---	DDB

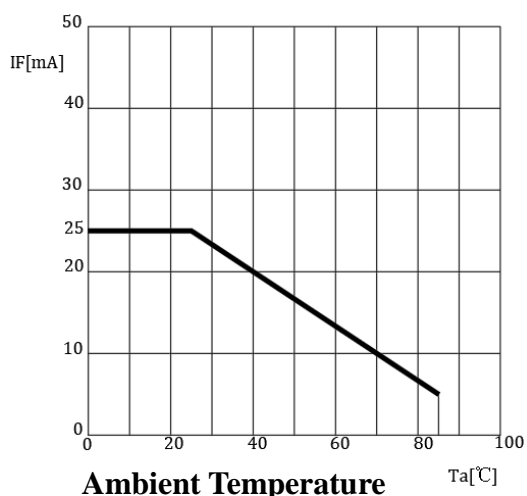
- Notes:1. Tolerance of Luminous Intensity is $\pm 15\%$
2. Tolerance of Forward Voltage is $\pm 0.1V$
3. Tolerance of Dominant Wavelength is $\pm 1nm$
4. Customer's special requirements are also welcome.

Typical optical characteristics curves (RED)

Ta=25°C Forward Current vs Forward

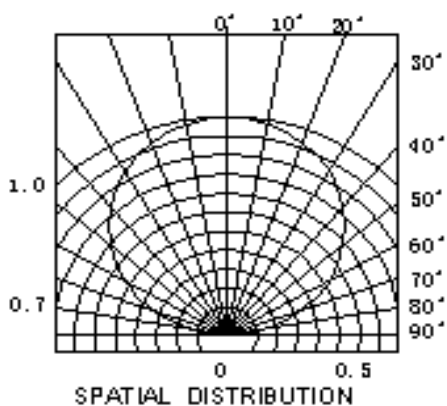
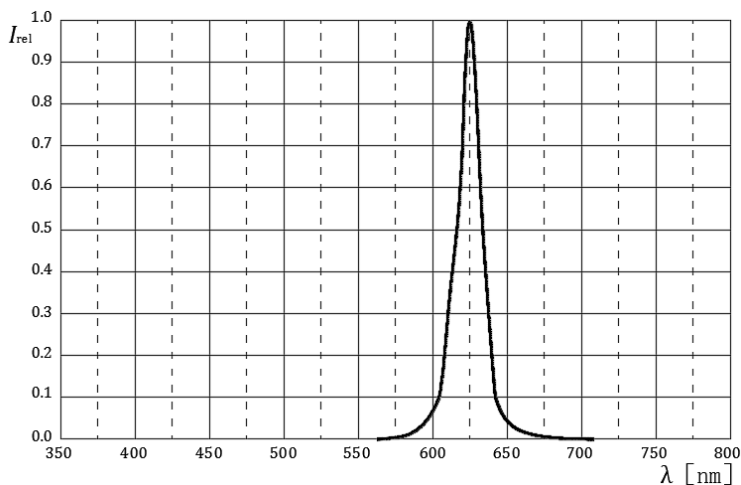


Forward Current



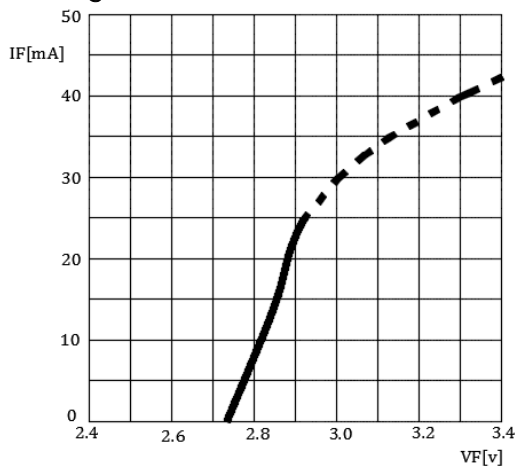
Relative Spectral Emission

IF=20mA, Ta=25°C



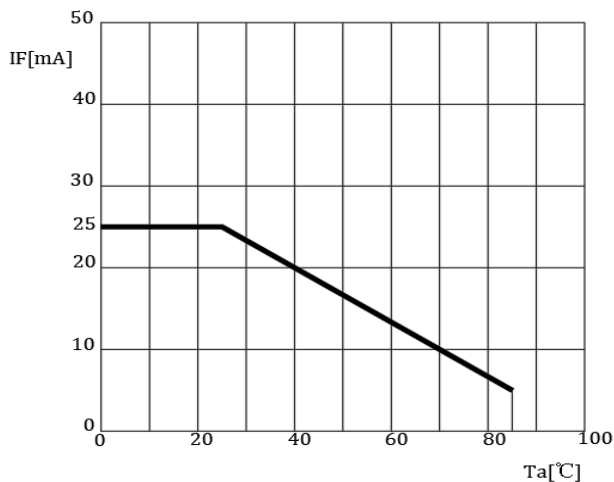
Relative Spectral Emission (Green)

Ta=25°C Forward Current vs Forward Voltage



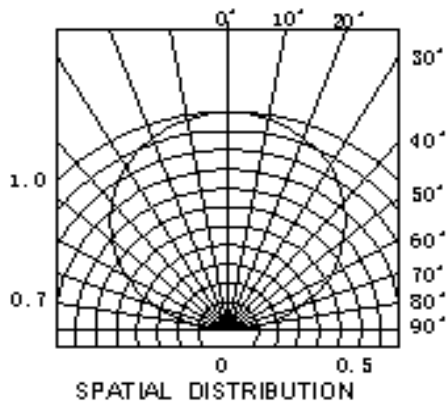
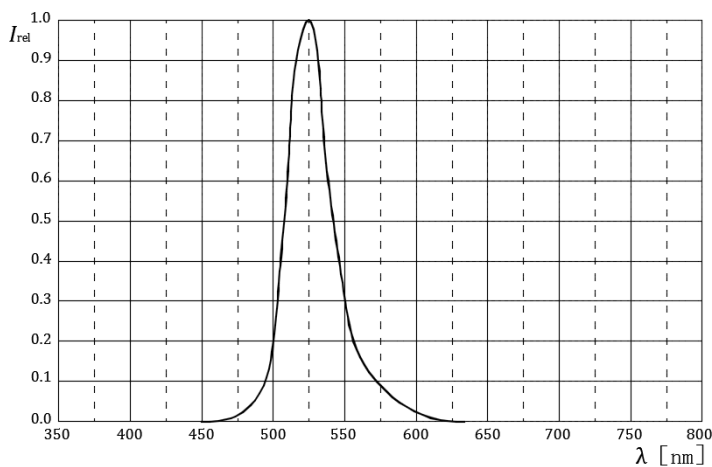
**Forward
Voltage**

Forward Current Derating Curve



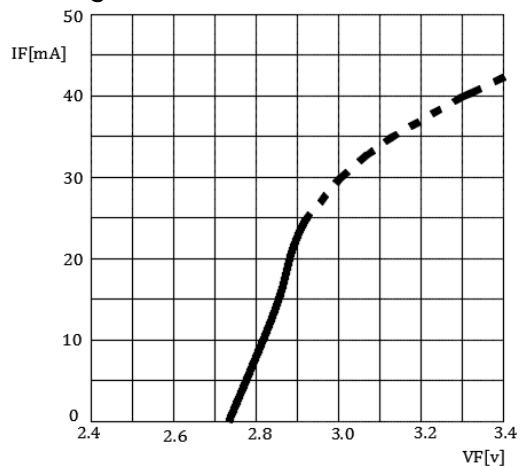
**Ambient
Temperature**

IF=20mA, Ta=25°C



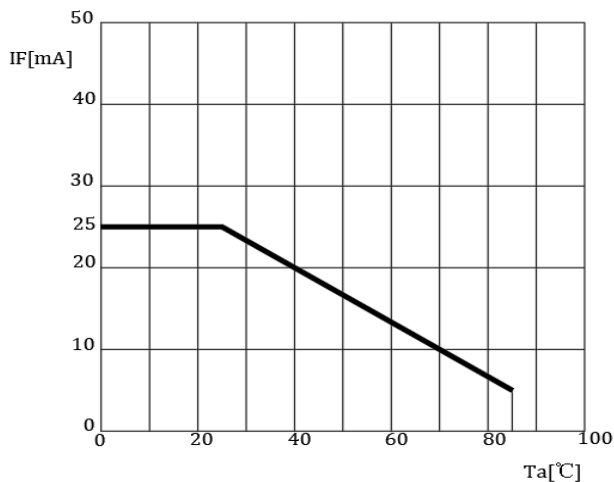
Relative Spectral Emission (Blue)

Ta=25°C Forward Current vs Forward Voltage



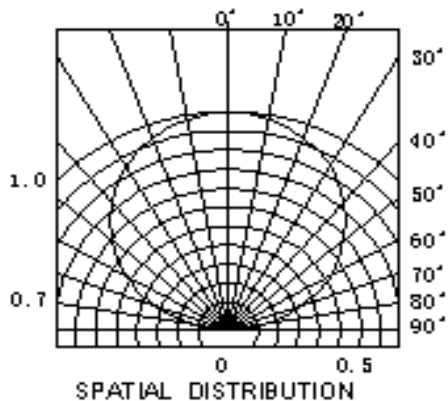
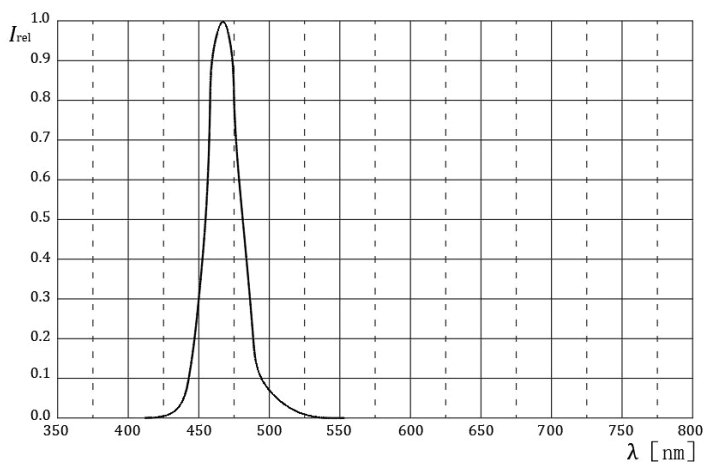
**Forward
Voltage**

Forward Current Derating Curve



**Ambient
Temperature**

IF=20mA, Ta=25°C



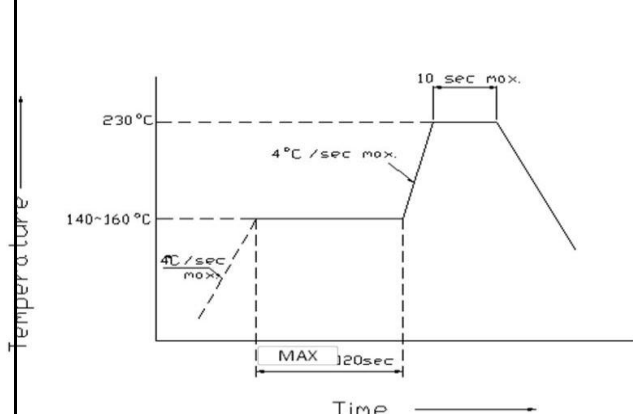
Reflow Profile

Pb-free Solder temperature Profile

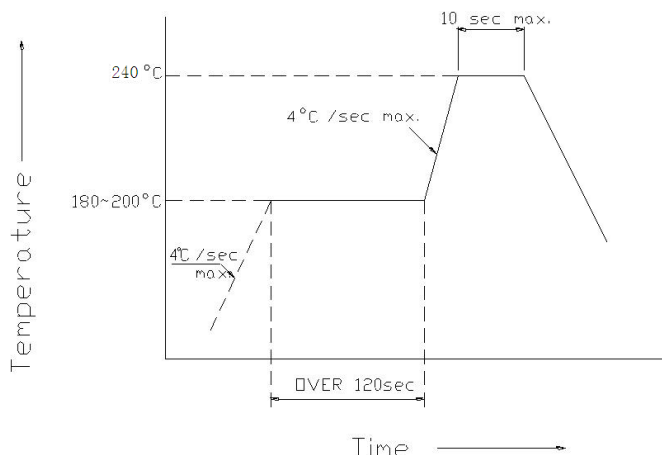
(Recommended soldering conditions)

Reflow Soldering			Temperature Soldering time	350° C Max. 3 sec. Max. (one time only)
Pre-heat time	Lead Solder	Lead-free Solder		
Pre-heat	140 ~ 160° C 120 sec. Max.	180 ~ 200° C 120 sec. Max.		
Peak Soldering time	230° C Max. 10 sec. Max.	240° C Max. 10 sec. Max.		
Condition				

(Lead Solder)

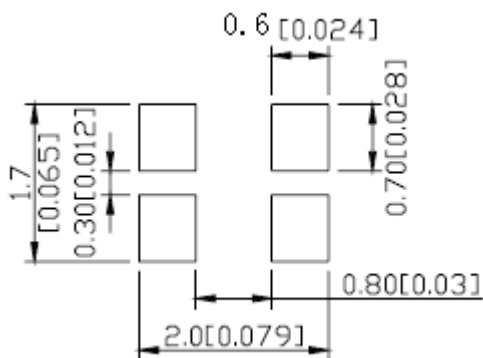


(Lead-Free Solder)



Recommended Soldering Pattern

(Units : mm)



Note: a)Reflow soldering should not be done more than two times.

b) Do not put stress on the LEDs when soldering.

c) Do not warp the circuit board before it has been returned to normal ambient conditions after soldering.

Hand Soldering Profile

The temperature of the iron should be lower than 300°C and soldering within 3sec per solder-pad is to be observed.

Storage Profile

1. Do not open the moisture proof bag before ready to use the LEDs
2. The LEDs should be kept at 30°C or less and 60%RH or less before opening the package.
The max. storage period before opening the package is 1 year.
3. After opening the package, the LEDs should be kept at 30°C/40%RH or less, and it should be used within 7 days
4. If the LEDs be kept over the condition of 3, baking is required before mounting. Baking condition as below: 60±5°C for 24 hours

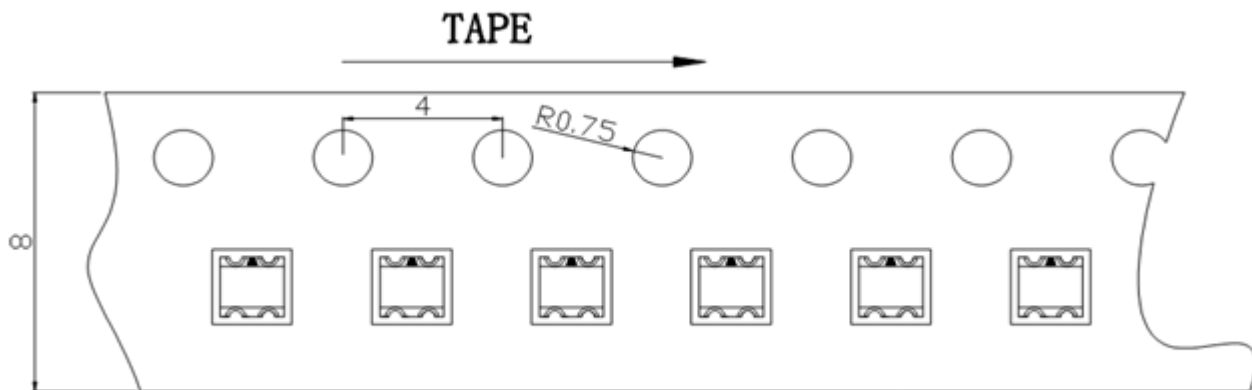
Sulfur-sensitive

- **There is silver-plated metal part on the inner/outer side of the outer package.
If exposed to the condition with corrosive gas, the silver plating surface may go bad, which will affect soldering strength and optical properties. Therefore, after opening it must be kept in a sealed container, etc.**
- **Materials contain sulfur component (gasket, adhesive, etc.) may have bad effects on the surface of the coating, so please do not use such materials in the product.**
- **In cardboard boxes and rubber, even in the atmosphere may contain minute amount of corrosive gases; In addition, the resin material may also contain halogen which has a bad effect on the surface of the coating.**
- **Even if the soldering installation and product assembly finished, by the effect of corrosive gas generated by relative materials of LED and external injected, the coating surface may go bad, so it is necessary to design the product taking into account the above factors.**
- **If requires, it is best to use a silicone washer, but be aware that low molecular silicone may cause the product poor contact.**
- **Keep the product in location where has less temperature change, because moisture condensation would be generated under a condition of strong temperature change.**

DISCLAIMER

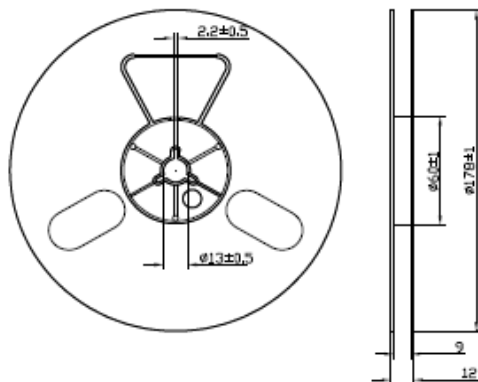
- 1. Our department reserves the right(s) on the adjustment of product material mix for the specification.**
- 2. The product meets our department published specification for a period of twelve (12) months from date of shipment.**
- 3. The graphs shown in this datasheet are representing typical data 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. Our department 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.**
- 5. These specification sheets include materials protected under copyright of our department.
Reproduction in any form is prohibited without obtaining our department's prior consent.**
- 6. This product is not intended to be used for military, aircraft, automotive, medical, life sustaining or life saving applications or any other application which can result in human injury or death.**

Packaging

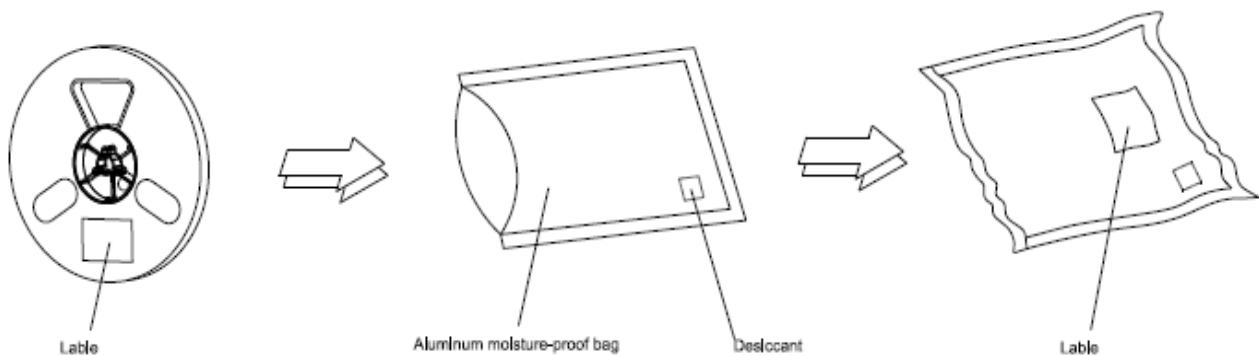


Package: 4000 pcs/reel

Reel Dimensions



Moisture Resistant Packaging



Note: The tolerances unless mentioned is $\pm 0.1\text{mm}$, Unit: mm

The LEDs are packed in cardboard boxes after taping.