



LEDTECH ELECTRONICS CORP.

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[Http://www.ledtech.com.tw](http://www.ledtech.com.tw)

SPECIFICATION

PART NO. : LT5K63-3R-UJF7-SA8

3.2 x 2.8mm SMD TYPE



Approved by

Checked by

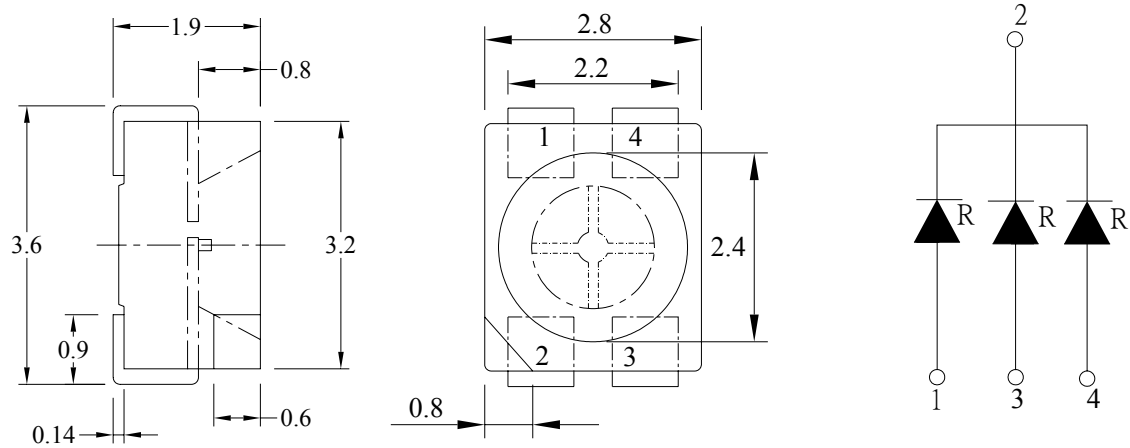
Prepared by

Tung

Lian

Show

Package Dimensions



Notes:

- 1. All dimensions are in mm.
- 2. Tolerance is ± 0.25 mm unless otherwise noted.

Description

| Part No. | LED Chip | | Lens Color |
|--------------------|------------|----------------|-------------|
| | Material | Emitting Color | |
| LT5K63-3R-UJF7-SA8 | AlGaInP/Si | Hyper Red | Water Clear |

Absolute Maximum Ratings at Ta=25°C :

| Parameter | Symbol | Rating | Unit |
|---|----------|--|------|
| Power Dissipation ★ | PD | 78 | mW |
| Reverse Voltage ★ | VR | 5 | V |
| D.C. Forward Current ★ | If | 30 | mA |
| Peak Current(1/10Duty Cycle,0.1ms Pulse Width.) ★ | If(Peak) | 100 | mA |
| Operating Temperature Range | Topr. | -25 to +85 | °C |
| Storage Temperature Range | Tstg. | -40 to +100 | °C |
| Soldering Temperature ★ | Tsld. | Dip Soldering: 260 for 10 sec. Hand Soldering: 350 for 3 sec. | |

★ The value are based on 1 die performance.

Electrical and Optical Characteristics:

| Parameter | Symbol | Condition | Min. | Typ. | Max. | Unit |
|----------------------------|-----------------|------------|------|------|------|---------|
| Luminous Intensity ★2 | Iv | If=20mA ★1 | 756 | 1250 | | mcd |
| Forward Voltage ★1 | Vf | If=20mA ★1 | | 2.1 | 2.6 | V |
| Peak Wavelength ★1 | λ_p | If=20mA ★1 | | 632 | | nm |
| Dominant Wavelength ★1 | λ_d | If=20mA ★1 | | 625 | | nm |
| Reverse Current ★1 | Ir | Vr=5V ★1 | | | 100 | μA |
| Viewing Angle ★2 | 2θ 1/2 | If=20mA ★1 | | 120 | | deg |
| Spectrum Line Halfwidth ★1 | $\Delta\lambda$ | If=20mA ★1 | | 20 | | nm |

Notes: 1. The datas tested by IS tester.

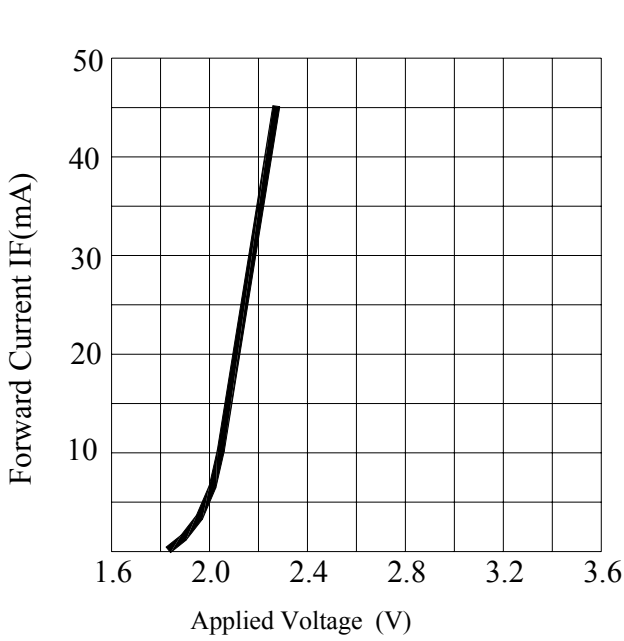
2. Customer's special requirements are also welcome.

3. ★1 For each die

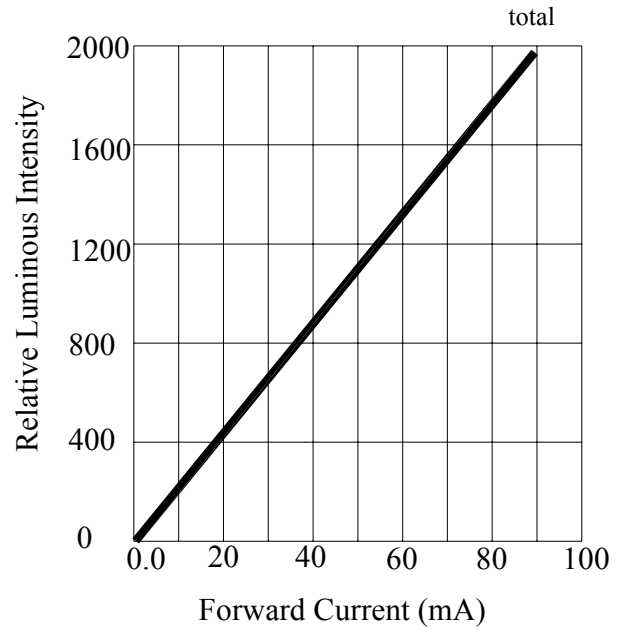
4. ★2 When all LED dies are operated simultaneously..

Typical Electrical/Optical Characteristic Curves

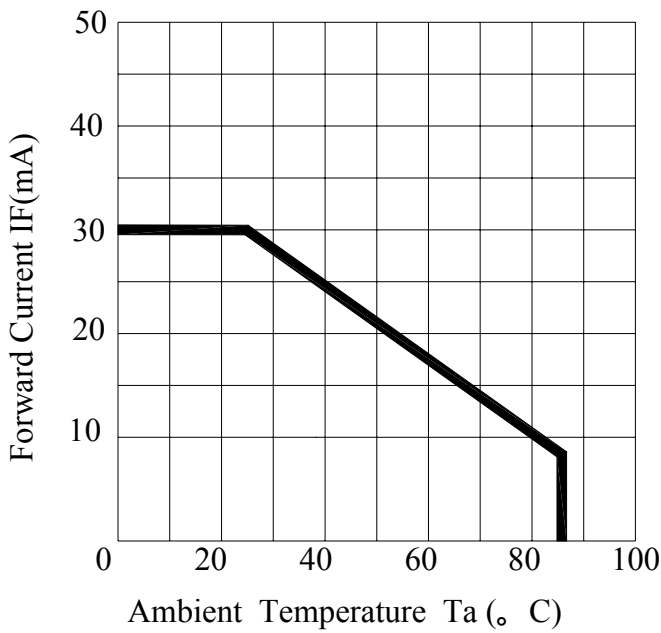
(25°C Ambient Temperature Unless Otherwise Noted)



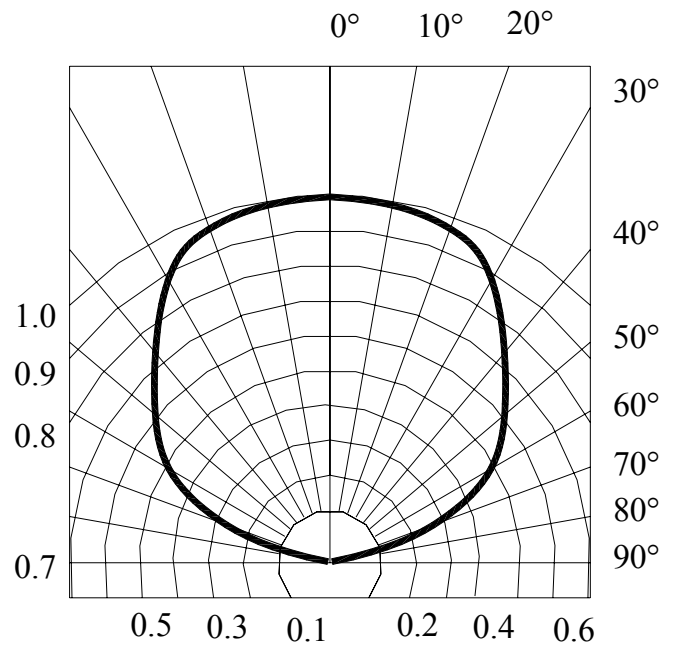
Forward Current VS. Applied Voltage



Forward Current VS. Luminous Intensity



Ambient Temperature VS. Forward Current



Radiation Diagram

PRECAUTION IN USE

Storage

Recommended storage environment

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Use within 7 days after opening of sealed vapor/ESD barrier bags.

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.

Fold the opened bag firmly and keep in dry environment.

Soldering

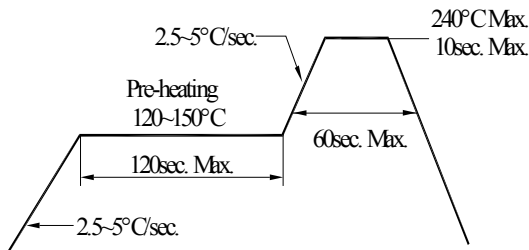
| | Reflow Soldering | | Hand Soldering | |
|------------------|---------------------------------------|---------------------------------------|----------------|-------------------------------|
| | Lead Solder | Lead - free Solder | | |
| Pre-heat | 120~150°C | 180~200°C | Temperature | 350°C Max. |
| Pre-heat time | 120sec. Max. | 120sec. Max. | Soldering time | 3sec. Max. (one time only) |
| Peak temperature | 240°C Max. | 260°C Max. | | |
| Soldering time | 10sec. Max. | 10sec. Max. | | |
| Condition | refer to Temperature- profile 1 | refer to Temperature- profile 2 | | |

*After reflow soldering rapid cooling should be avoided.

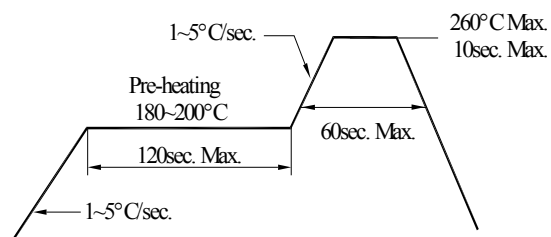
[Temperature-profile (Surface of circuit board)]

Use the conditions shown to the under figure.

< 1 : Lead Solder >

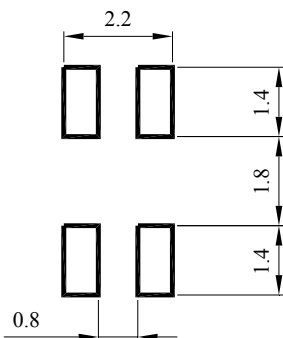


< 2 : Lead-free Solder >



[Recommended soldering pad design]

Use the following conditions shown in the figure.



(UNIT:mm)

Handling of Silicone Resin LEDs

Handling Indications

During processing, mechanical stress on the surface should be minimized as much as possible. Sharp objects of all types should not be used to pierce the sealing compound

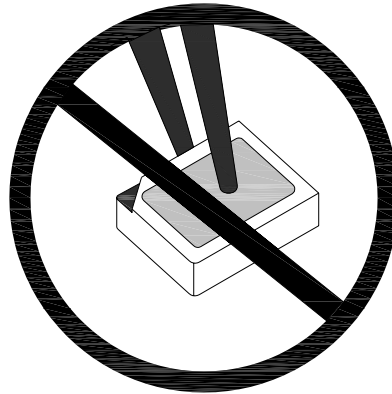


Figure 1

In general, LEDs should only be handled from the side. By the way, this also applies to LEDs without a silicone sealant, since the surface can also become scratched.

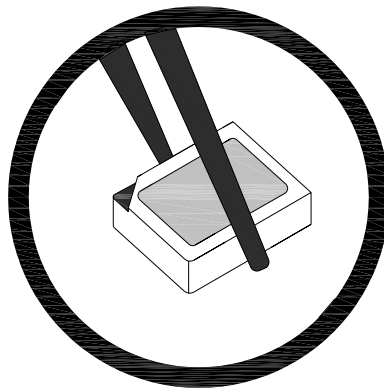
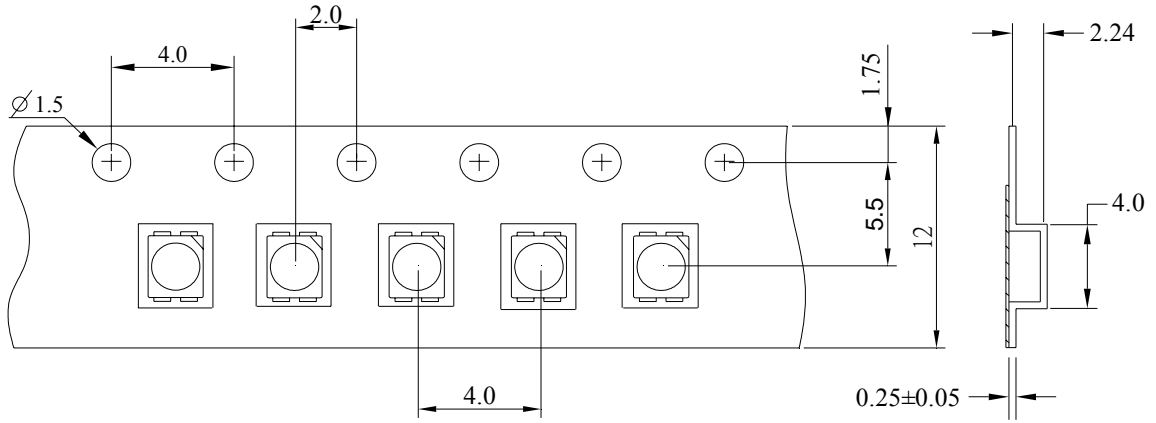


Figure 2

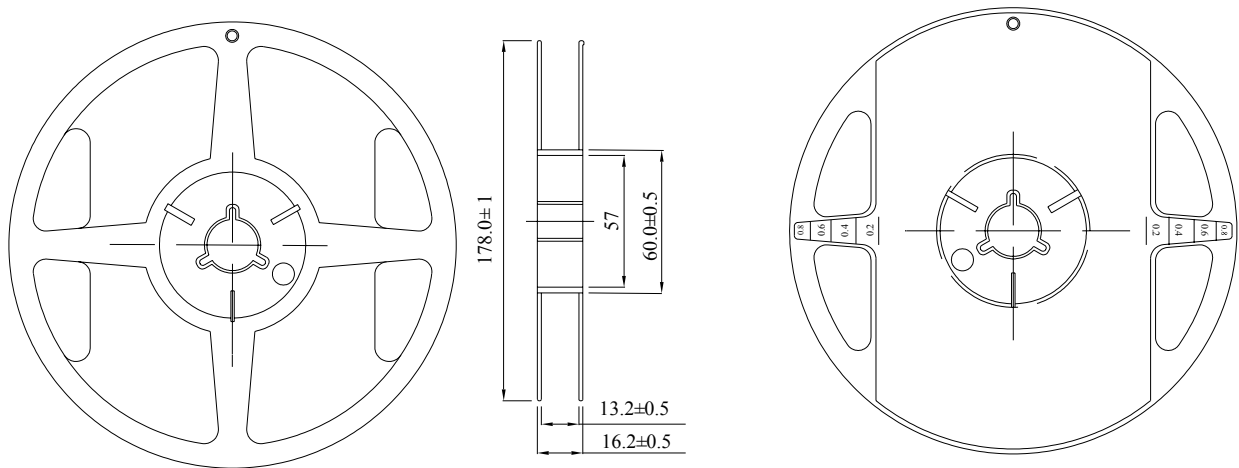
When populating boards in SMT production, there are basically no restrictions regarding the form of the pick and place nozzle, except that mechanical pressure on the surface of the resin must be prevented.

This is assured by choosing a pick and place nozzle which is larger than the LED's reflector area.

Dimensions for Tape



Dimensions for Reel



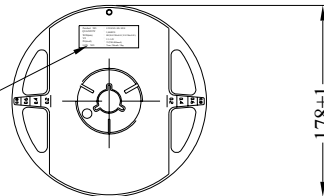
Notes:

1. All dimensions are in mm, tolerance is ± 2.0 mm unless otherwise noted.
2. Specifications are subject to change without notice.

Packing

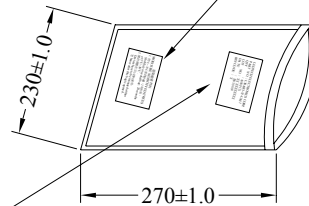
REEL
QUANTITY: 2,000 PCS

LEDTECH ELECTRONICS CORP.
PART NO :LTXXXX-XX
Q'TY : PCS
LOT NO :XXXXXXXXXX
DATE :
BIN CODE:



BAG
QUANTITY: 2,000 PCS

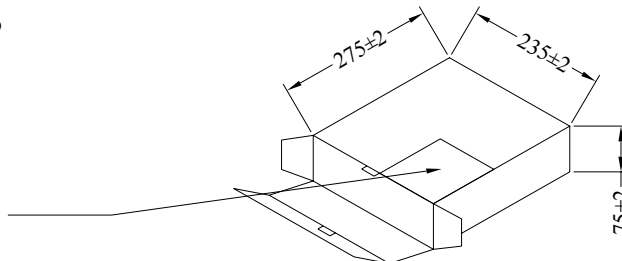
LEDTECH ELECTRONICS CORP.
PART NO :LTXXXX-XX
Q'TY : PCS
LOT NO :XXXXXXXXXX
DATE :
BIN CODE:



溼氣敏感材料
MOISTURE SENSITIVE DEVICES
1. 在5°C~30°C密封貯藏，1年有效。
Shelf life in sealed bag : 12 months
at 5°C~30°C .
2. 開封後需在168小時內使用。
Devices have to be mounted within
168 hours after this bag is opened .

INSIDE BOX
QUANTITY: 4 BAGS
TOTAL: 8,000 PCS

LEDTECH ELECTRONICS CORP.
PART NO :LTXXXX-XX
Q'TY : PCS
LOT NO :XXXXXXXXXX
DATE :
BIN CODE:



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