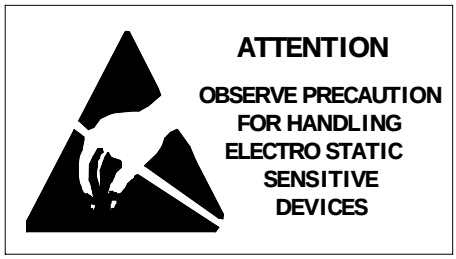
LEDTECH ELECTRONICS CORP.

NANYA ROAD,MUGANG ZHAOQING
CITY GUANGDONG CHINA.
TEL:86-758-2875541,2870651,2877464,2876185,2877017
FAX:86-758-2878014
Http://www.ledtech.com.tw

SPECIFICATION

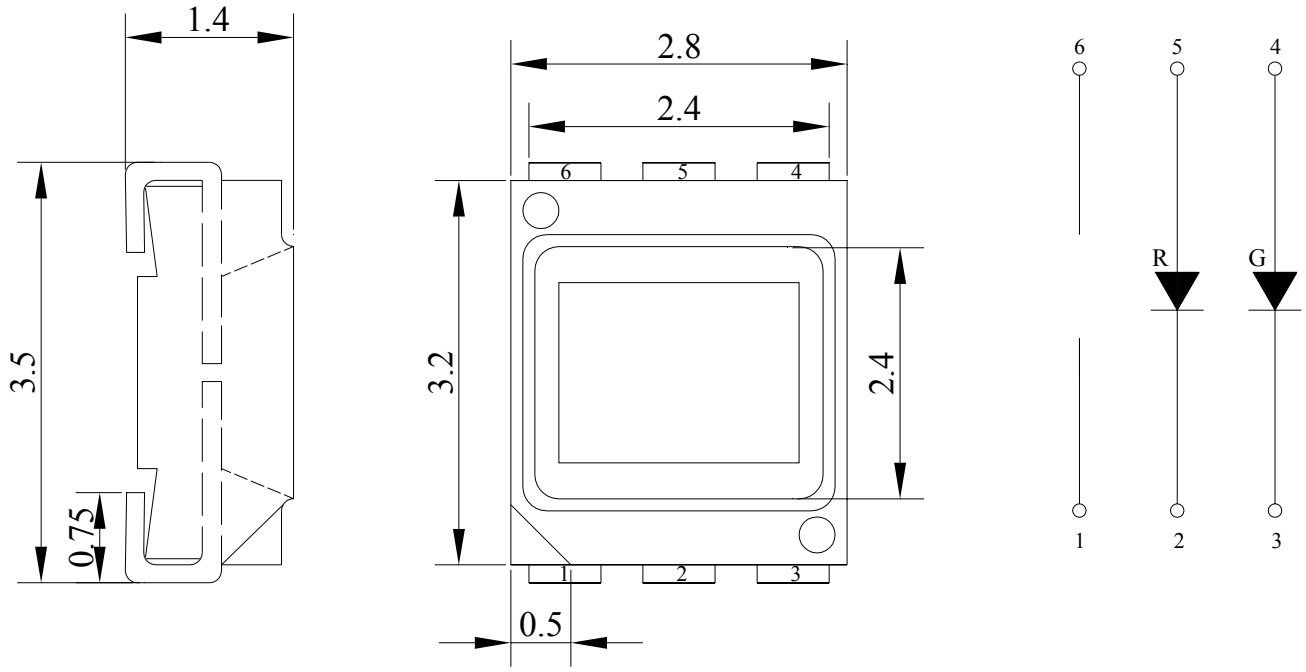
PART NO. : LT5K63-1C-R7G3-SQT

3.2 x 2.8mm SMD TYPE



Approved by	Checked by	Prepared by
Kj	*Lian*	*Jie*

Package Dimensions



Notes:

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

Description

Part No.	LED Chip		Lens Color
	Material	Emitting Color	
LT5K63-1C-R7G3-SQT	AlGaInP/Si	Hyper Red	Water Clear
	InGaN/SiC	True Green	

Absolute Maximum Ratings at Ta=25 ℃

Parameter	Symbol	Rating		Unit
		R	G	
Power Dissipation	PD	78	120	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.	-40 to +100		℃
Storage Temperature Range	Tstg.	-40 to +100		℃
Soldering Temperature	Tsld.	Reflow Soldering: 260℃ for 10 sec. Hand Soldering: 350℃ for 3 sec.		

Electrical and Optical Characteristics:

Parameter	Symbol	Color	Condition	Min.	Typ.	Max.	Unit
Luminous Intensity	IV	R	If=20mA	367	600		mcd
		G		270	500		
Forward Voltage	Vf	R	If=20mA		2.1	2.6	V
		G			3.2	4.0	
Peak Wavelength	λp	R	If=20mA		632		nm
		G			---		
Dominant Wavelength	λd	R	If=20mA		625		nm
		G			525		
Reverse Current	Ir	R&G	Vr=5V			50	μA
Viewing Angle	2θ1/2		If=20mA		120		deg
Spectrum Line Halfwidth	Δλ	R	If=20mA		20		nm
		G			26		

Notes:1. Tolerance of Luminous Intensity is ±15%

2. Tolerance of Forward Voltage is ±0.1V

3. Tolerance of Dominant Wavelength is ±1nm

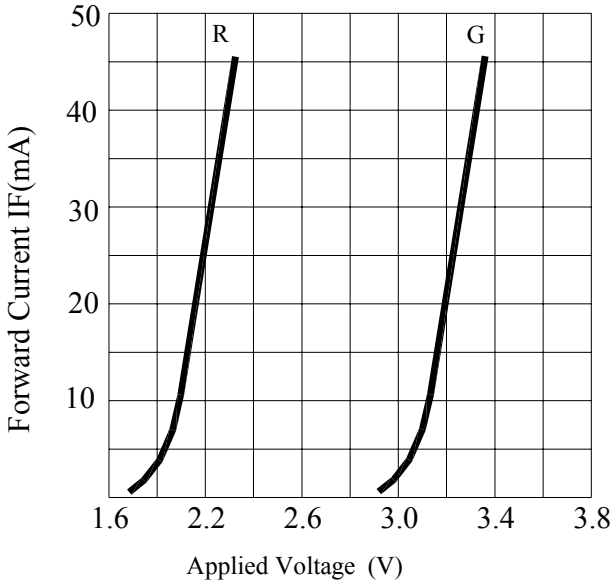
4. Customer's special requirements are also welcome.

Bin Code

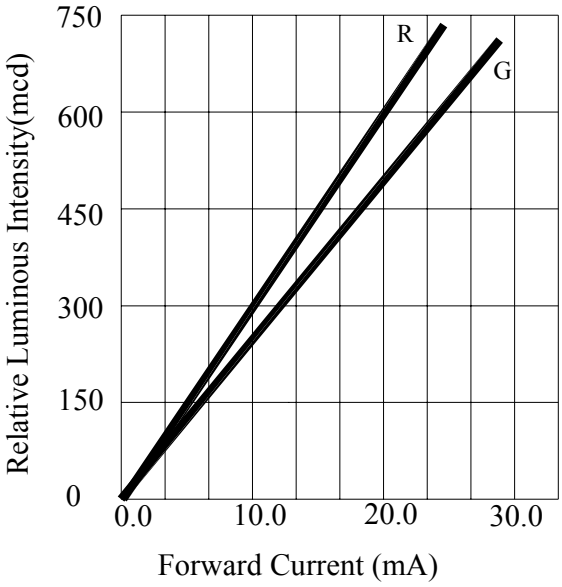
Parameter	Rank		Min.	Max.	Unit
Wd@20mA	R	43	619	624	nm
		44	624	629	
	G	15	520	525	
		16	525	530	
IV@20mA	R	44	367	429	mcd
		45	429	516	
		46	516	622	
		47	622	756	
		48	756	909	
	G	E	270	370	
		F	370	500	
		G	500	700	
		H	700	1000	
Vf@20mA	R:1.8~2.6		VF:0.2V/BIN		V
	G:2.6~4.0		VF:0.2V/BIN		

Typical Electrical/Optical Characteristic Curves

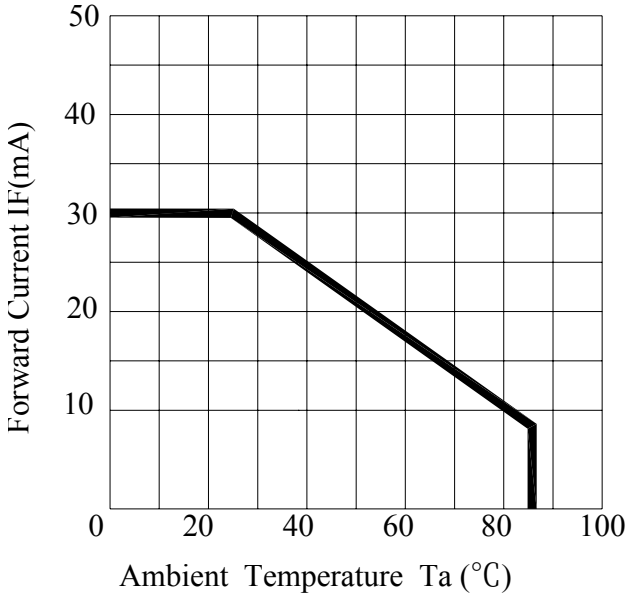
(25℃ Ambient Temperature Unless Otherwise Noted)



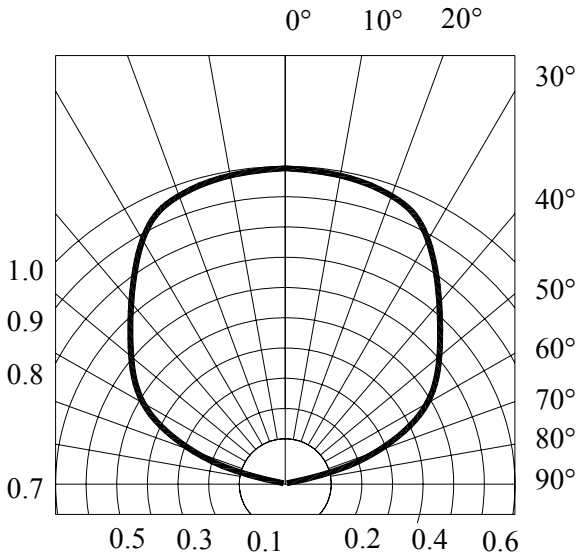
Forward Current VS. Applied Voltage



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.

Moisture measures: Please refer to Moisture-sensitive label on reels package bags.

If unused LEDs remain, they should be stored in moisture proof packages, such as sealed container with packages of moisture absorbent material (silica gel). It is also recommended to return the LEDs to the original moisture proof bag and to reseal the moisture proof bag again.

Fold the opened bag firmly and keep in dry environment.

Soldering

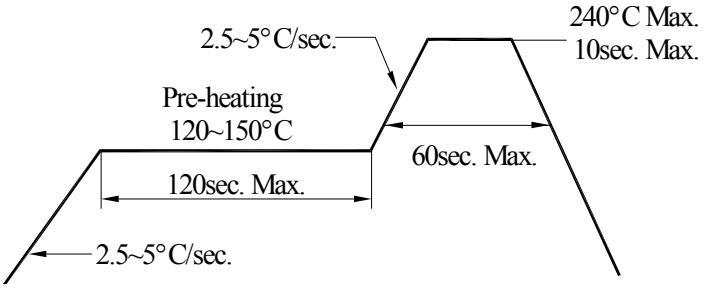
Reflow Soldering			Hand Soldering	
	Lead Solder	Lead – free Solder		
Pre-heat	120~150℃	180~200℃	Temperature	350℃ Max.
Pre-heat time	120sec. Max.	120sec. Max.	Soldering time	3sec. Max. (one time only)
Peak temperature	240℃ Max.	260℃ Max.		
Soldering time	10sec. Max.	10sec. Max.		
Condition	refer to Temperature-profile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

***After reflow soldering rapid cooling should be avoided.**

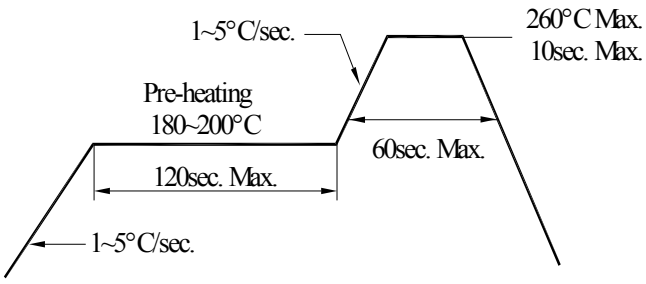
[Temperature-profile (Surface of circuit board)]

Use the conditions shown to the under figure.

＜1 : Lead Solder＞

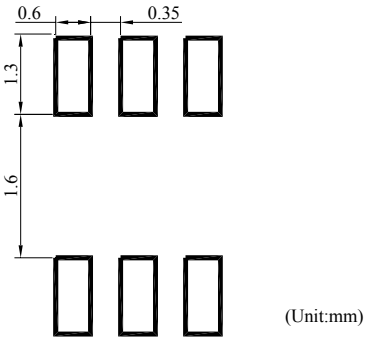


＜2 : Lead-free Solder＞



[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

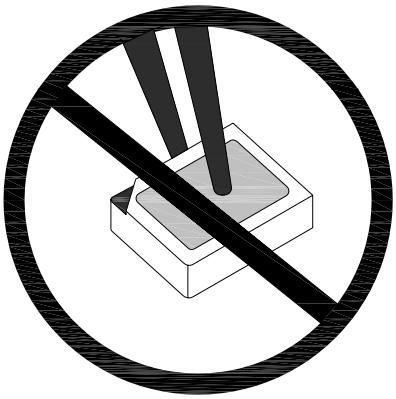


Figure 1

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.

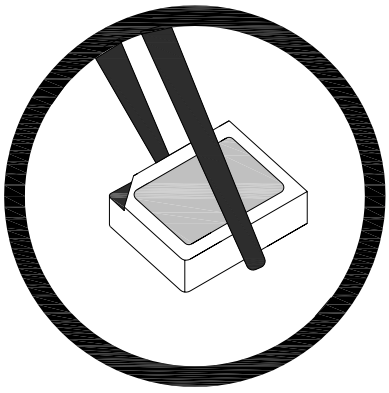
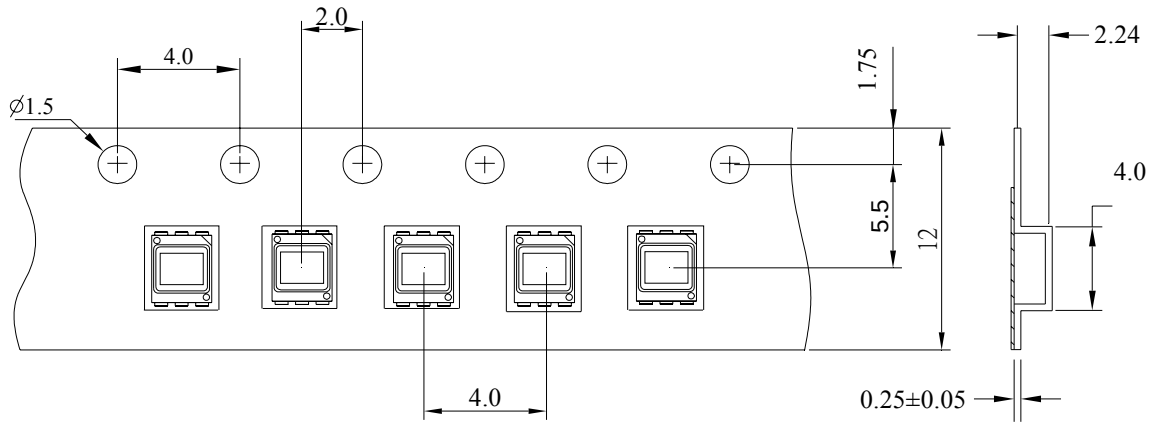


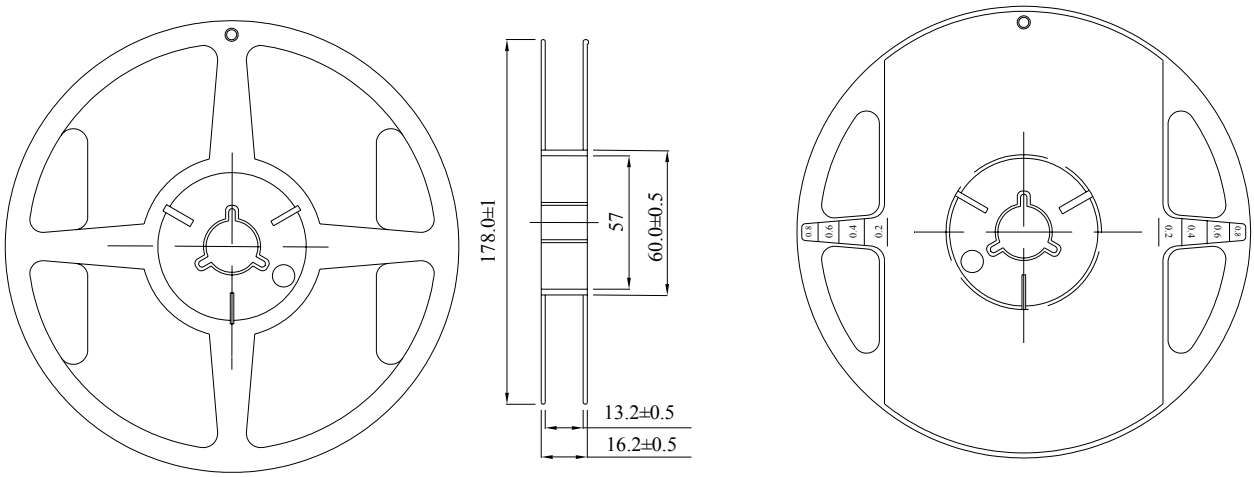
Figure 2

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:

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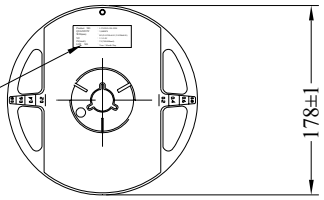
2.Specifications are subject to change without notice.

Packing

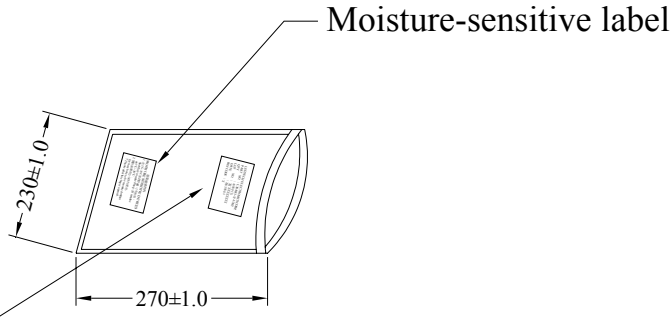
REEL
QUANTITY: 2,000 PCS

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



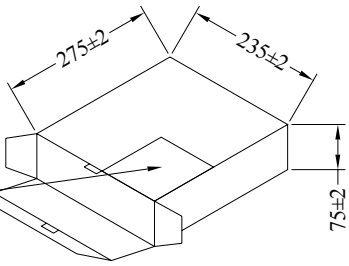
BAG
QUANTITY: 2,000 PCS

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



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

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



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