LEDTECH ELECTRONICS CORP.

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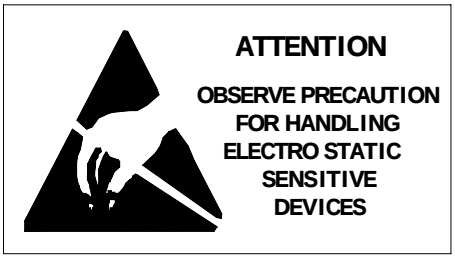
SPECIFICATION

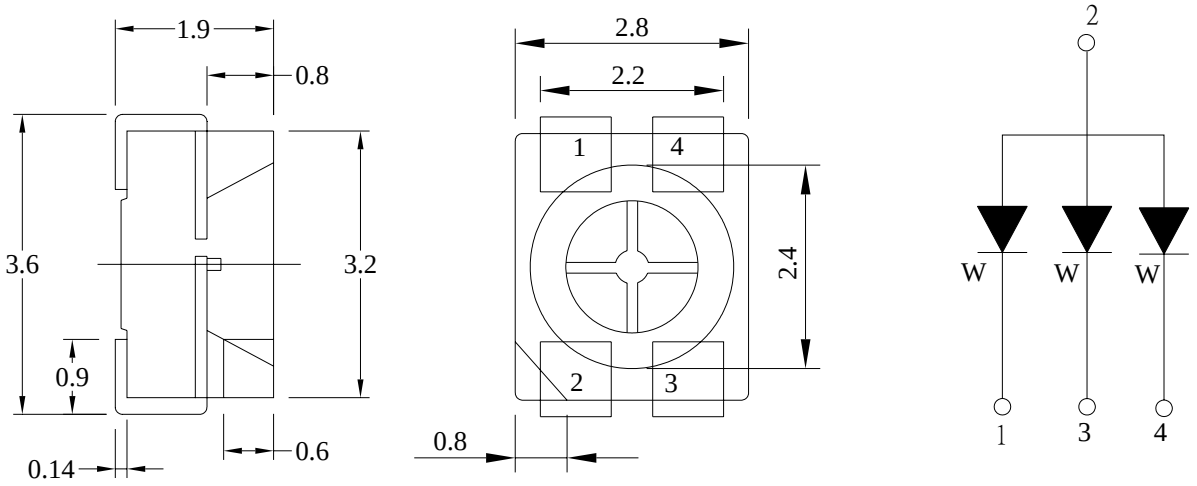
PART NO. : LT5KE3-2Y-3UNL3-27Z

3.2 x 2.8mm SMD TYPE



Approved by	Checked by	Prepared by
Tung	*Lian*	*Karen*

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	
LT5KE3-2Y-3UNL3-27Z	InGaN/Sapphire	Warm White	Water Clear

Absolute Maximum Ratings at Ta=25 ℃:

Parameter	Symbol	Rating	Unit
Power Dissipation ★	P_D	120	mW
Reverse Voltage ★	V_R	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.	
Electric Static Discharge Threshold (HBM) ★	ESD	6000	V

★ 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	3159	5500		mcd
Luminous Flux ★2		Φv	If=20mA ★1		11300		mlm
Forward Voltage ★2		Vf	If=20mA ★1		3.2	4.0	V
Correlated Colour Temperature ★2	25	CCT	If=20mA ★1	2500		2600	K
	26			2600	-	2700	
	27			2700	-	2900	
Reverse Current ★1		Ir	Vr=5V ★1			50	μA
Viewing Angle ★2		2θ 1/2	If=20mA ★1		120		deg

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℃ Ambient Temperature Unless Otherwise Noted)

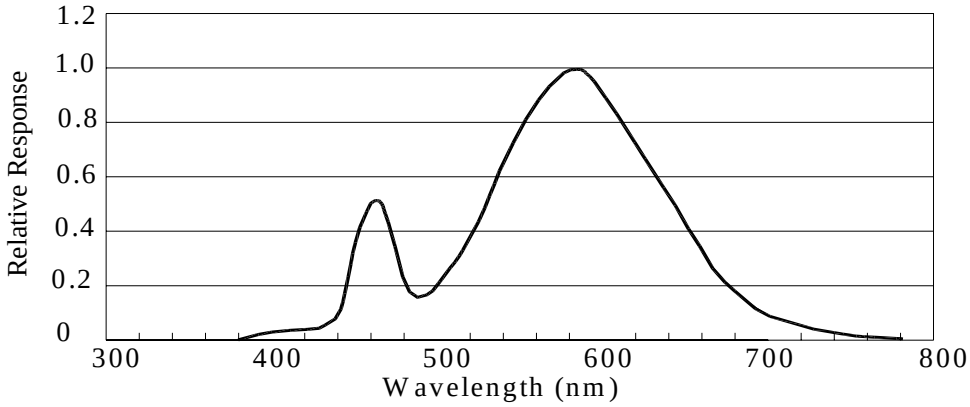
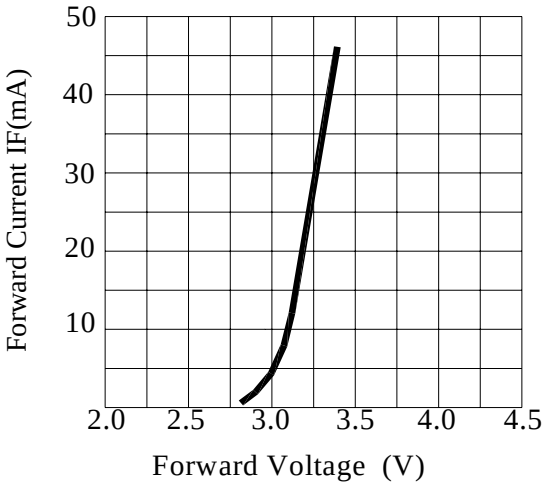
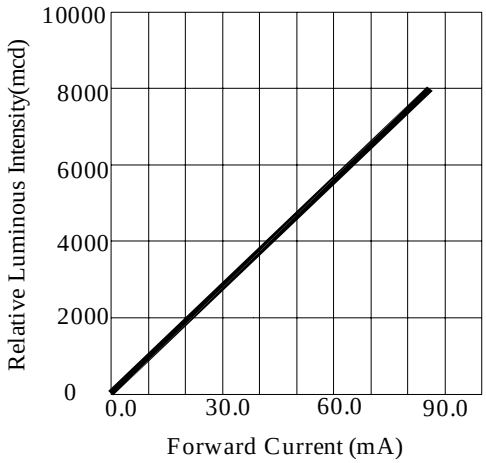


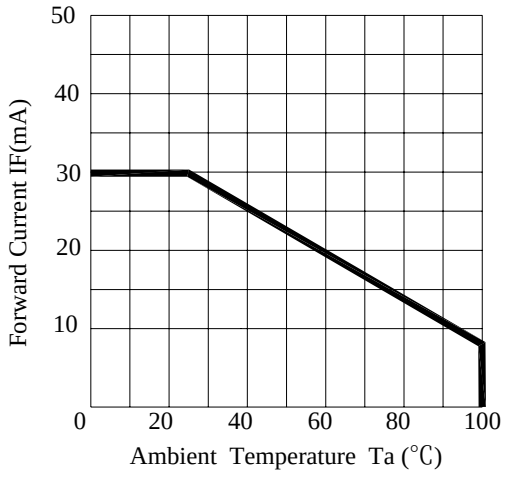
Fig.1 WHITE LED Spectrum VS. WAVELENGTH



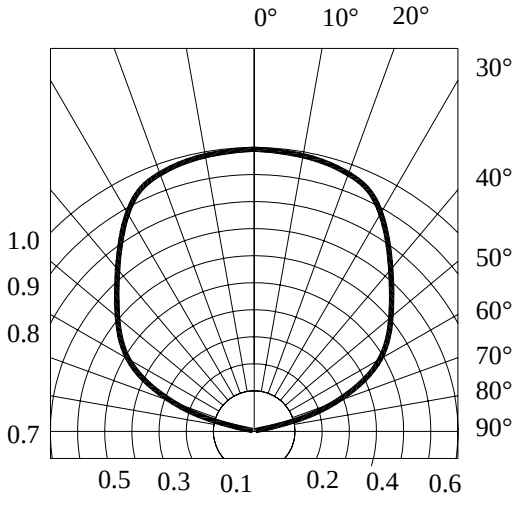
Forward Current VS. Applied Voltage



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

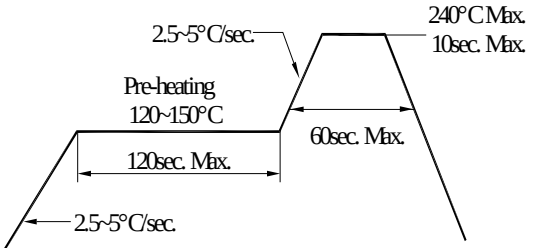
Reflow Soldering			Hand Soldering	
	Lead Solder	Lead – free Solder		
Pre-heat	120~150℃	180~200℃	Temperature	350℃ Max.
Pre-heat time	120sec. Max.	120sec. Max.	Soldering time	3sec. Max. (one time only)
Peak temperature	240℃ Max.	260℃ Max.		
Soldering time	10sec. Max.	10sec. Max.		
Condition	refer to Temperature-profile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

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

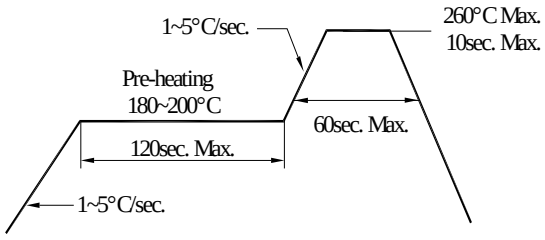
[Temperature-profile (Surface of circuit board)]

Use the conditions shown to the under figure.

＜1 : Lead Solder＞

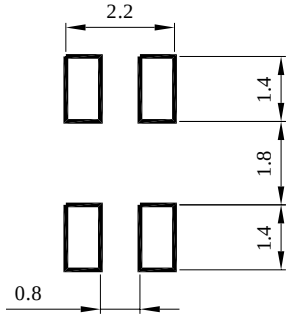


＜2 : Lead-free Solder＞



[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

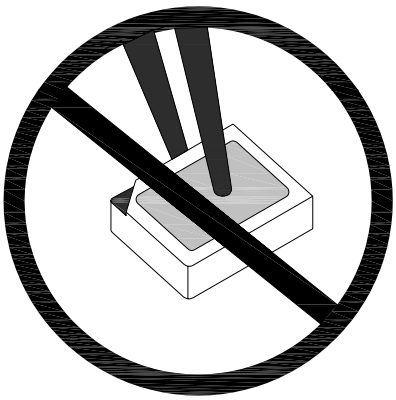


Figure 1

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.

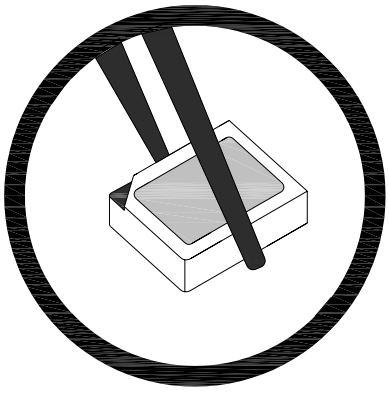
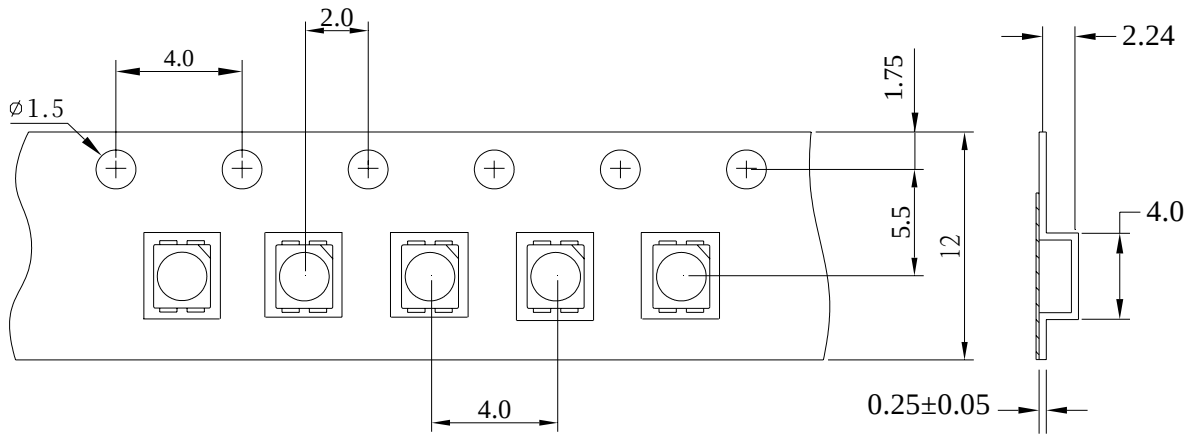


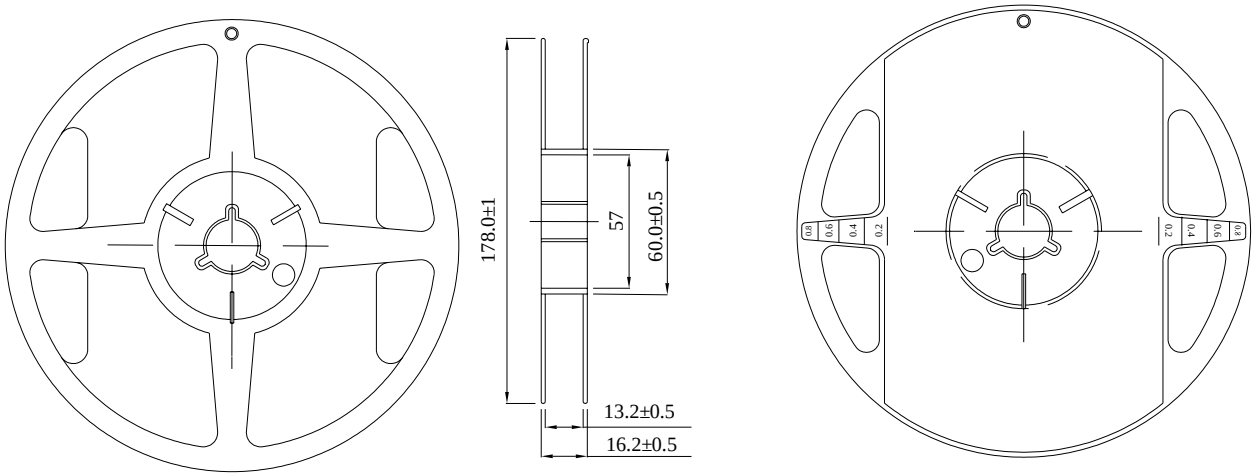
Figure 2

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:

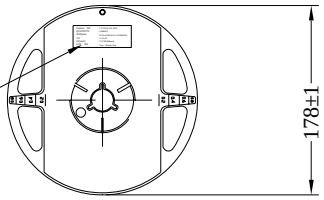
1.All dimensions are in mm, tolerance is±2.0mm unless otherwise noted.

2.Specifications are subject to change without notice.

Packing

REEL
QUANTITY: 2,000 PCS

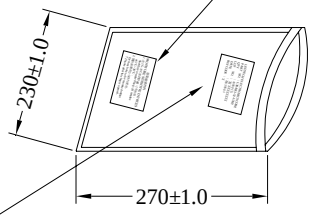
LEDTECH ELECTRONICS CORP.
PART NO :LTXXXX-XX
Q'TY : PCS
LOT NO :XXXXXXXXX
DATE :
BIN CODE:



Moisture-sensitive label

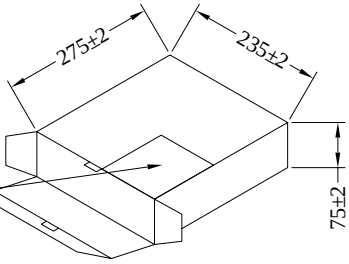
BAG
QUANTITY: 2,000 PCS

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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