Kingbright

1.6X0.8mm SMD CHIP LED LAMP

PRELIMINARY SPEC

Part Number: KPTD-1608SYC-J3

Super Bright Yellow

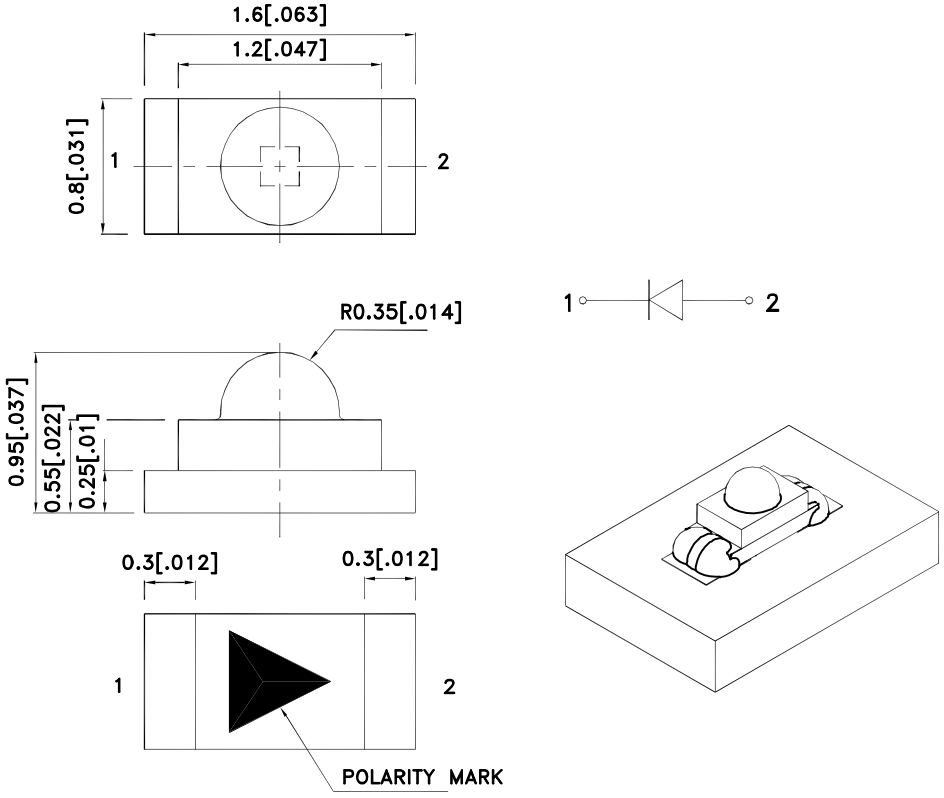
Features

- 1.6mmX0.8mm SMT LED, 0.95mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Various colors and lens types available.
- Package: 2000pcs / reel .
- Moisture sensitivity level : level 3.
- RoHS compliant.

Description

The Super Bright Yellow device is based on light emitting diode chip made from AlGaInP.

Package Dimensions



Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.15(0.006") unless otherwise noted.
3. Specifications are subject to change without notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.

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Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
KPTD-1608SYC-J3	Super Bright Yellow (AlGaInP)	WATER CLEAR	480	800	60°

Notes:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
2. Luminous intensity/ luminous Flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Yellow	590		nm	I_F=20mA
λD [1]	Dominant Wavelength	Super Bright Yellow	589		nm	I_F=20mA
Δλ1/2	Spectral Line Half-width	Super Bright Yellow	20		nm	I_F=20mA
C	Capacitance	Super Bright Yellow	45		pF	V_F=0V;f=1MHz
V_F [2]	Forward Voltage	Super Bright Yellow	2	2.5	V	I_F=20mA
I_R	Reverse Current	Super Bright Yellow		10	uA	V_R=5V

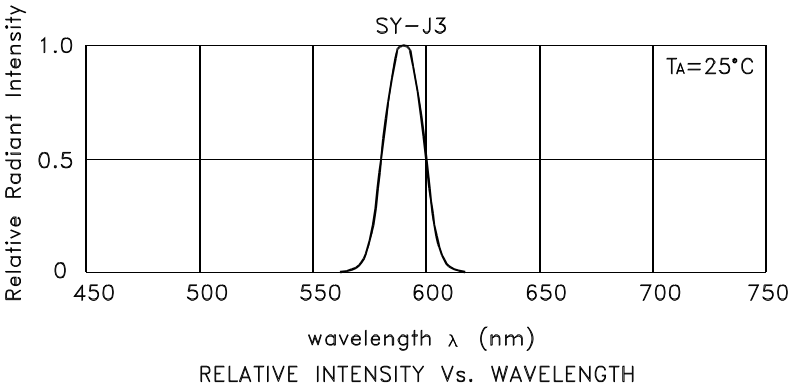
Notes:
1.Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

Parameter	Super Bright Yellow	Units
Power dissipation	75	mW
DC Forward Current	30	mA
Peak Forward Current [1]	140	mA
Reverse Voltage	5	V
Operating Temperature	-40°C To +85°C	
Storage Temperature	-40°C To +85°C	

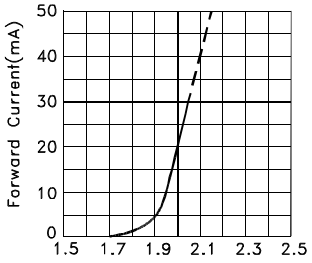
Note:
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

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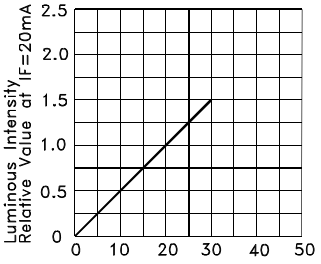


RELATIVE INTENSITY Vs. WAVELENGTH

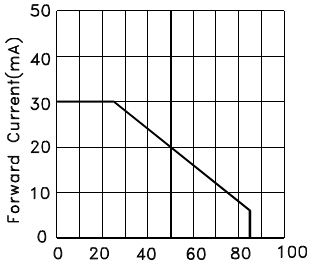
Super Bright Yellow **KPTD-1608SYC-J3**



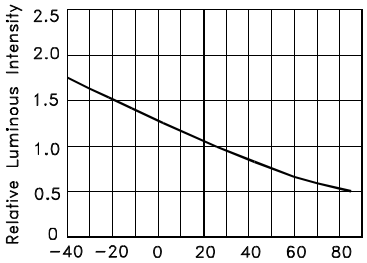
FORWARD CURRENT Vs
FORWARD VOLTAGE



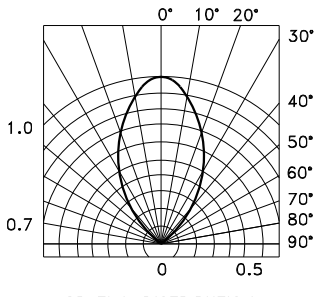
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT VS.
DERATING CURVE



LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



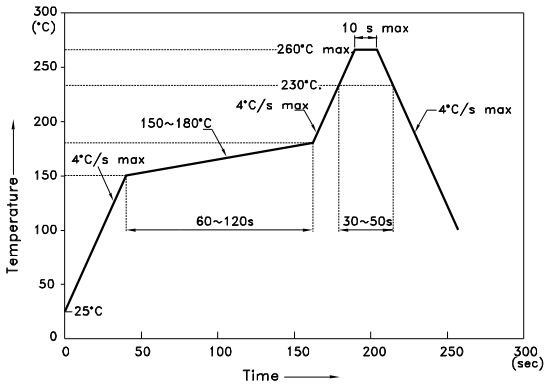
SPATIAL DISTRIBUTION

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KPTD-1608SYC-J3

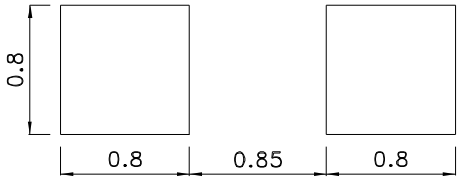
Reflow soldering is recommended and the soldering profile is shown below.
Other soldering methods are not recommended as they might cause damage to the product.

Reflow Soldering Profile For Lead-free SMT Process.

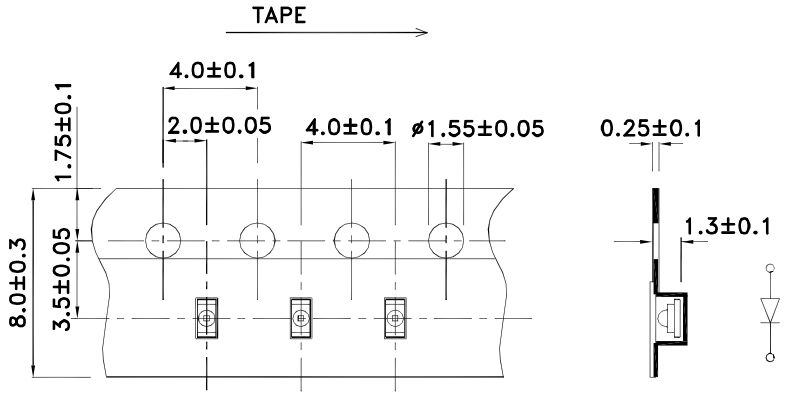


NOTES:
1. We recommend the reflow temperature 245°C(+/-5°C).The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

Recommended Soldering Pattern
(Units : mm; Tolerance: ± 0.1)

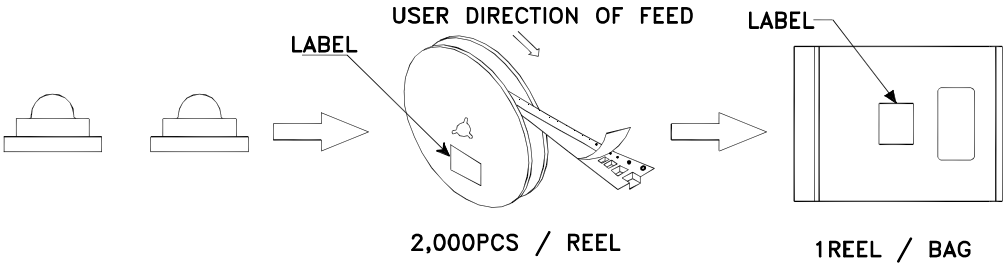


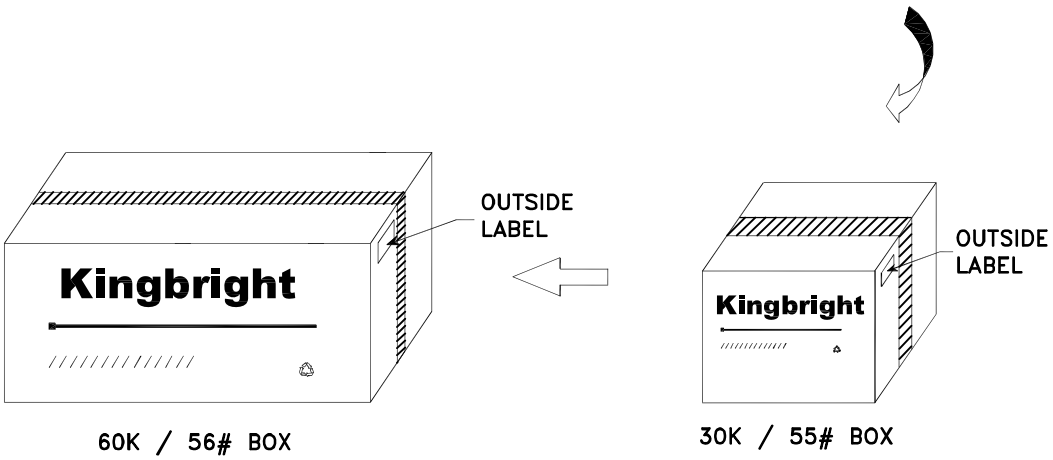
Tape Dimensions
(Units : mm)

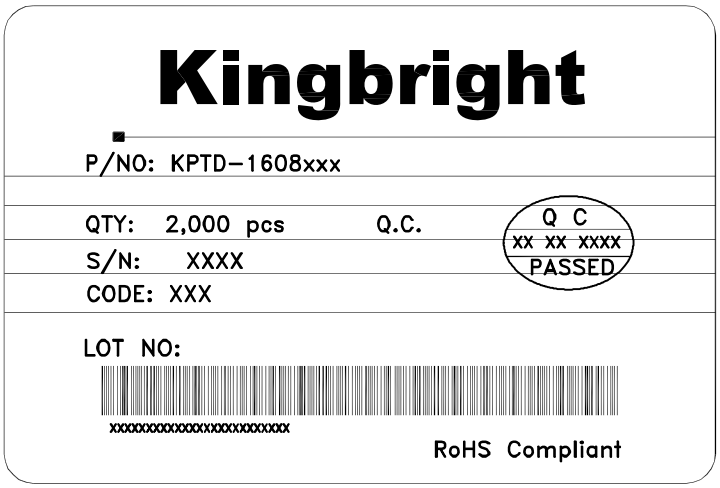


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PACKING & LABEL SPECIFICATIONS **KPTD-1608SYC-J3**







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