

FEATURES

Highly Luminous White LED

InGaN Technology Chip

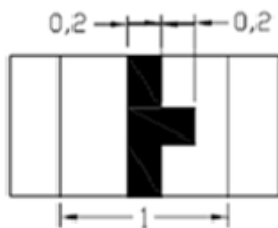
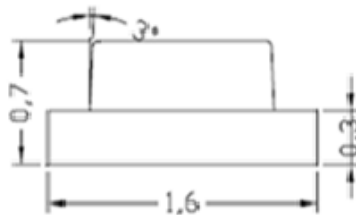
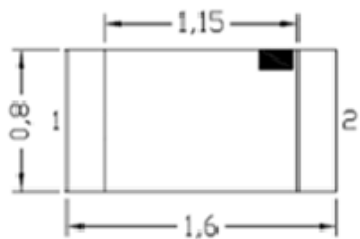
Package in 8mm tape on 7" diameter reel

0603 package (t=0.70mm)

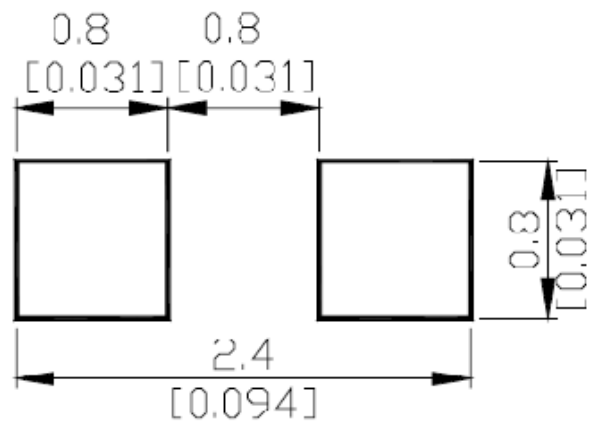
Compatible with automatic placement equipment

Compatible with IR and vapor phase reflow solder process

Package Dimensions 1.6mm(L) * 0.8mm(W) * 0.7mm(H)



RECOMMEND PAD DESIGN (Units: mm)



Notes:

1. All dimensions are in millimeters.
2. Tolerance ± 0.1 (0.01") mm unless otherwise noted.
3. Protruded resin under flange is 1.0mm (0.04") max.
4. Lead spacing is measured where the leads emerge from the package
5. Specifications are subject to change without notice.

Absolute Maximum Ratings at Ta = 25°C

Item	Symbol	Absolute Maximum Rating	Unit
DC Forward Current	I _F	20	mA
Peak Pulsed Forward Current ※	I _{FP}	100	mA
Reverse Voltage	V _R	5	V
Power Dissipation	P _d	72	mW
Operating Temperature	T _{opr}	-30 ~ +85 °C	°C
Storage Temperature	T _{stg}	-35 ~ +100 °C	°C
Soldering Temperature	T _{slid}	Reflow soldering : 260°C for 8 sec Hand soldering : 300°C for 3 sec	

Remarks: Duty Ratio = 1/10, Pulse Width = 0.1ms

Electrical / Optical Characteristics at Ta = 25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I _v	-----	680	-----	mcd	I _F =20 mA
Viewing angle	2θ 1/2	-----	120	-----	Deg.	I _F =20 mA
Forward Voltage	V _F	-----	3.1	3.5	V	I _F =20 mA
Reverse Current	I _R	-----	-----	20	uA	V _R =5V
Chromaticity* ordinate	X	-----	0.26	-----	-----	I _F =20 mA
	Y	-----	0.26	-----	-----	

*C.I.E. 1931 Chromaticity Diagram.

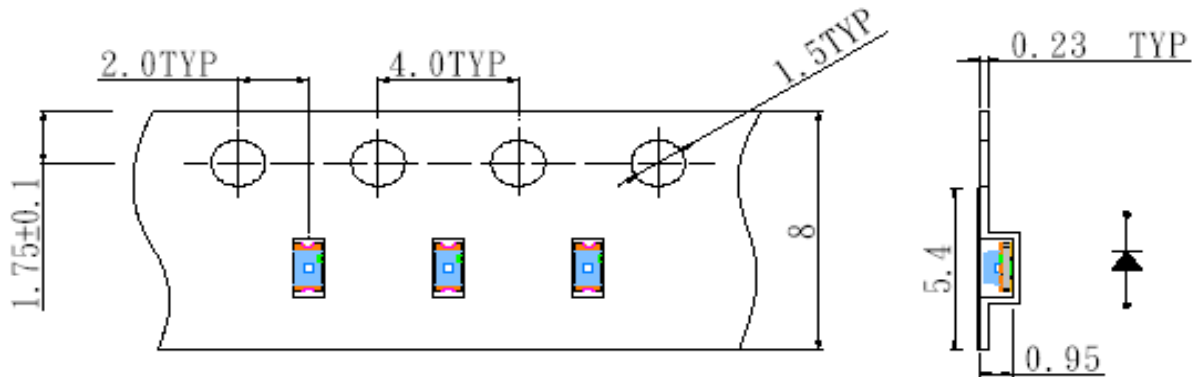


Electrostatic Sensitive Devices

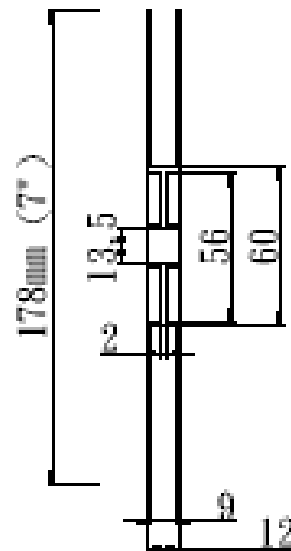
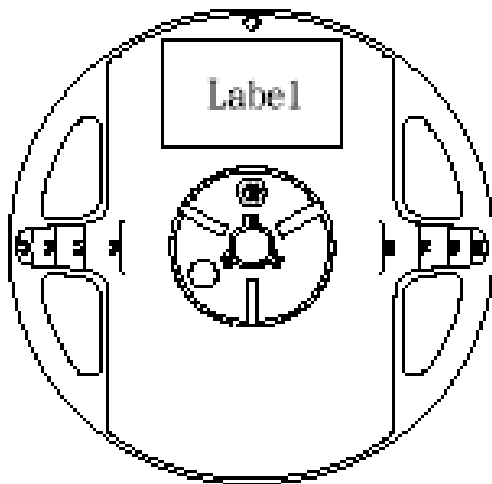
Packing Formation:

Taping

Carrier \longrightarrow PACKAGE: 4000PCS/REEL

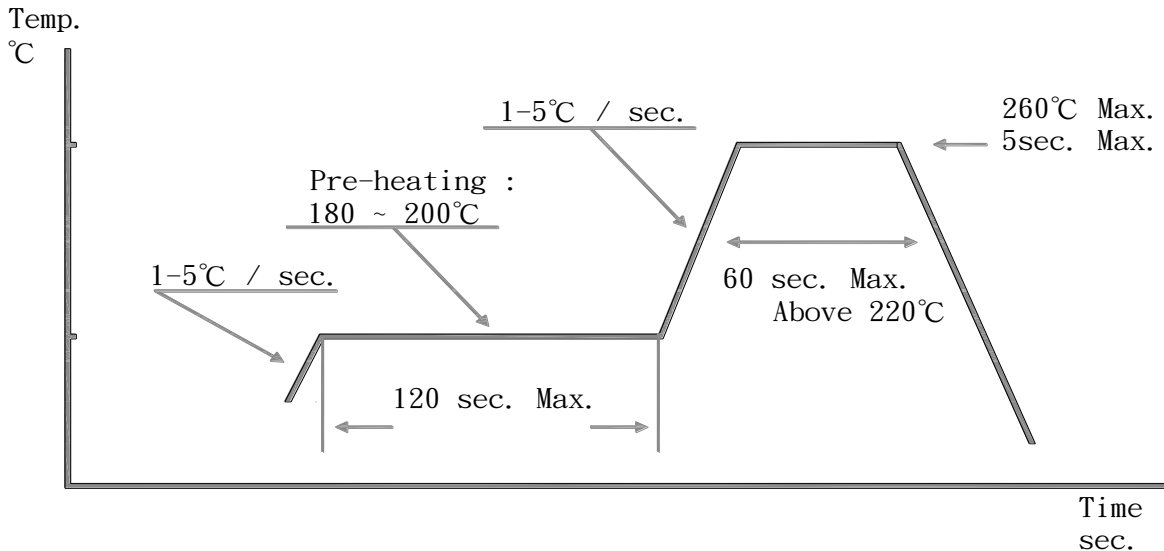


Reel



Recommended Soldering Conditions

Pb Free Solder:



Storage Condition :

1. Before opening the package:

The LEDs should be kept at 30°C or less and 90%RH or less.

The LEDs should be used within a year.

2. After opening the package:

The LEDs should be kept at 30°C or less and 70% or less.

The LEDs should be soldered within 168 hours after opening package.

If unused LEDs remain, they should be stored in moisture proof packages,

3. If LEDs were not using and have exposed to the air over 7 days, Please bake it before using.

Baking treatment: more than 24 hours at $65 \pm 5^{\circ}\text{C}$.

Static Electricity:

1. Static Electricity or surge voltage damages the LEDs.

2. It is recommended that a wrist band or an anti-electrostatic glove be used when handling the LEDs.

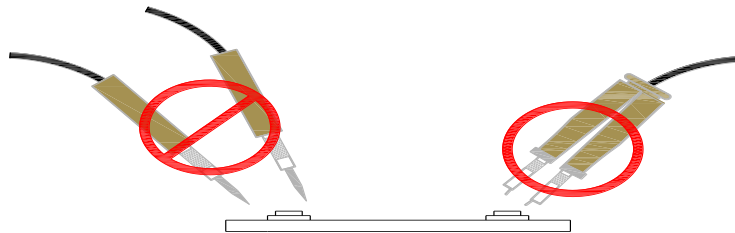
3. All devices, equipment and machinery must be properly grounded.

4. Damaged LEDs will show some unusual characteristics such as the leak current remarkably increases, the voltage becomes lower, or the LEDs do not light at the low current.

Reworking :

We do not recommend removing, repairing or adjusting the LEDs position while it has been soldered.

The foregoing reworking method might cause LEDs failed. However, when reworking is inescapable, we suggest twin-head soldering iron and working time within 2~3 seconds will be better.



Iv Ranks / Luminous Intensity Bin Limits

Luminous Intensity (Tolerance: $\pm 10\%$)		@20mA (unit:mcd)
Bin Code	min	max
P	620	670
Q	670	720
R	720	770

Notes:

1. One delivery will include up to three-color ranks and two luminous intensity ranks of the products. The quantity-ratio of the ranks is decided by YODER.
2. All data showing in this product specification are measured by proper experiment conditions and instruments. However, those data may be different due to variations of testing instruments and conditions.



Electrostatic Sensitive Devices