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SPECIFICATION

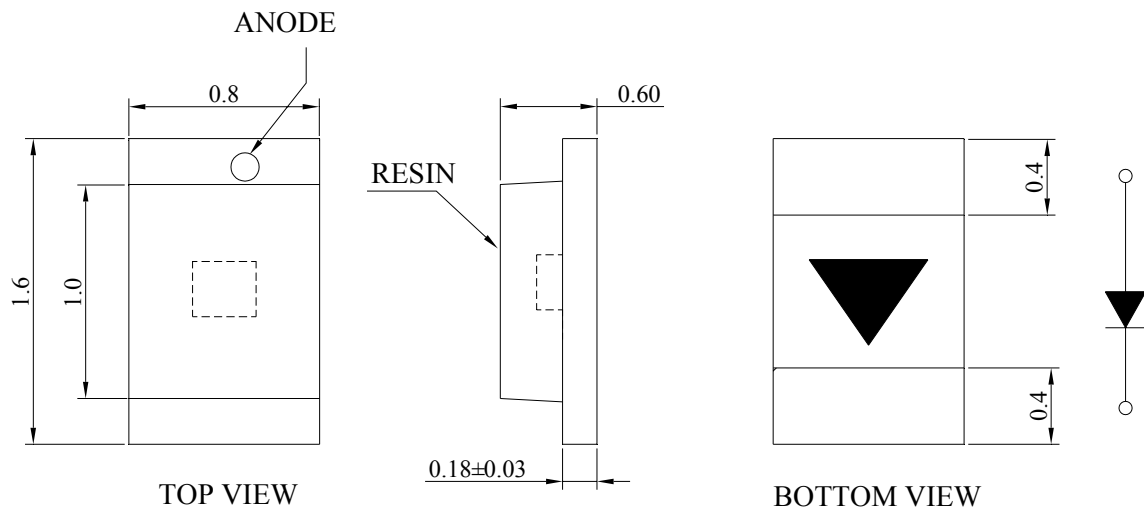
PART NO. : LT8A13-54-UJF7-T5

0603 SMD CHIP LED



Approved by	Checked by	Prepared by
<i>Tung</i>	<i>Lian</i>	<i>Ding</i>

Package Dimensions



Notes:

1. All dimensions are in mm.
2. Tolerance is ± 0.1 mm unless otherwise noted.

Description

Part No.	LED Chip		Lens Color
	Material	Emitting Color	
LT8A13-54-UJF7-T5	AlGaInP/Si	Hyper Red	Water Clear

Absolute Maximum Ratings at Ta=25 °C

Parameter	Symbol	Rating	Unit
Power Dissipation	P _D	78	mW
Reverse Voltage	V _R	5	V
D.C. Forward Current	I _f	30	mA
Peak Current(1/10Duty Cycle,0.1ms Pulse Width.)	I _f (Peak)	80	mA
Operating Temperature Range	T _{opr.}	-30 to +80	°C
Storage Temperature Range	T _{stg.}	-40 to +85	°C
Soldering Temperature.	T _{sol.}	Reflow Soldering:260°C for 10 sec.	

Electrical and Optical Characteristics:

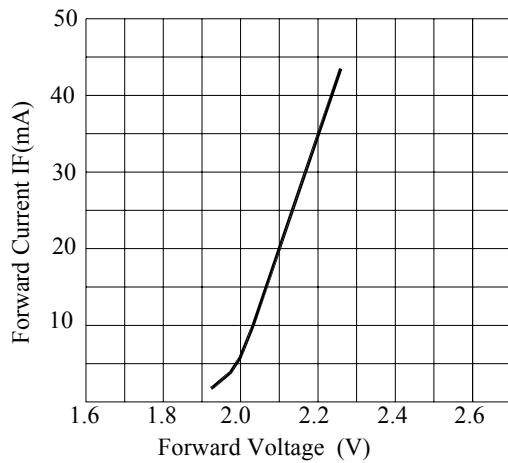
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Intensity	I _v	I _f =20mA	135	320		mcd
Forward Voltage	V _f	I _f =20mA		2.1	2.6	V
Peak Wavelength	λ _p	I _f =20mA		632		nm
Dominant Wavelength	λ _d	I _f =20mA		625		nm
Reverse Current	I _r	V _R =5V			100	μA
Viewing Angle	2 θ 1/2	I _f =20mA		130		deg
Spectrum Line Halfwidth	Δλ	I _f =20mA		20		nm

Notes:1.The datas tested by IS tester.

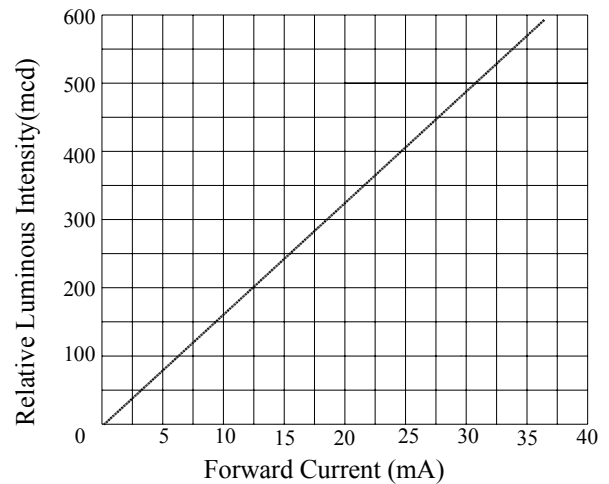
2. Customer's special requirements are also welcome.

Typical Electrical/Optical Characteristic Curves

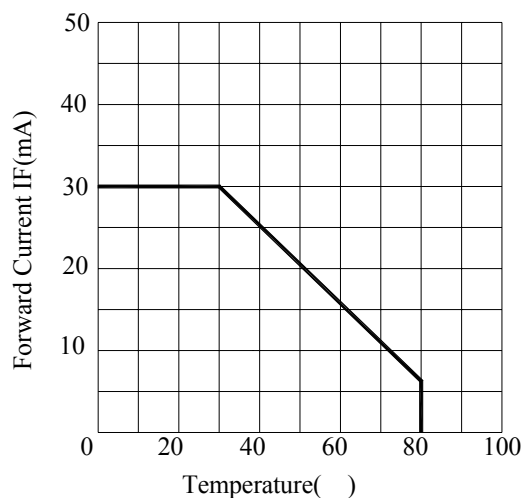
(25°C Ambient Temperature Unless Otherwise Noted)



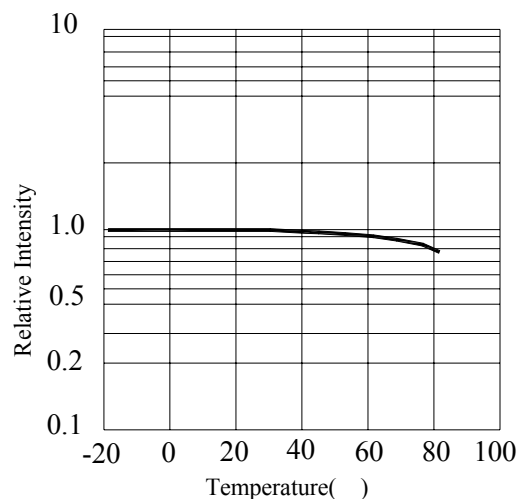
FORWARD CURRENT VS. APPLIED VOLTAGE



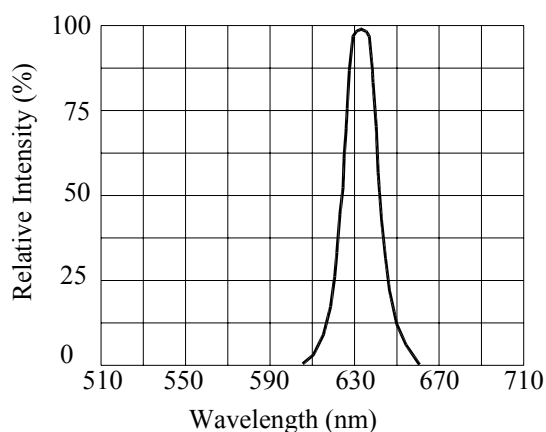
RELATIVE INTENSITY VS. FORWARD CURRENT



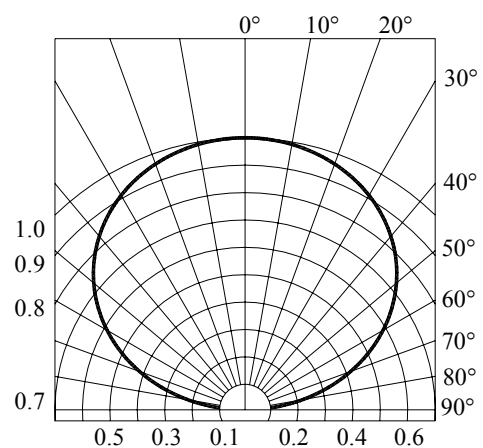
FORWARD CURRENT VS. AMBIENT TEMPERATURE



RELATIVE INTENSITY VS. AMBIENT TEMPERATURE



RELATIVE INTENSITY VS. WAVELENGTH



Radiation Diagram

Precautions in Use:

Storage

Recommend storage environment

Temperature : $5^{\circ}\text{C} \sim 30^{\circ}\text{C}$ ($41^{\circ}\text{F} \sim 86^{\circ}\text{F}$)

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 : $60 \pm 5^{\circ}\text{C}$ for 24 hours.

Fold the opened bag firmly and keep in dry environment.

Soldering

Reflow Soldering

Recommend use of upper and lower heater type reflow furnace.

260°C Max for up to 10 seconds, one time only.

Pre-heat is 150°C Max for up to 2 minutes Max.

In case of screen-printing, keep metal mask thickness between 0.2mm and 0.3mm.

Cleaning

Surface condition of this device may change when organic solvents such as trichloroethylene or acetone were applied.

Avoid using organic solvent.

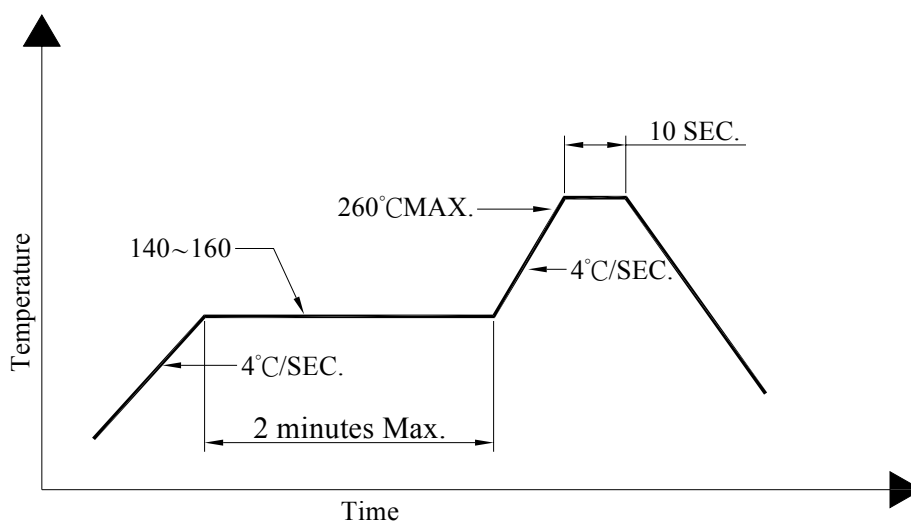
Recommend ultrasonic method 300W Max.

Packaging

EIA-481A standard package.

In 8mm tape on 4000 pcs diameter reels sealed in vapor/ESD barrier bags.

Reflow Temp/Time:



Technical drawing of a rectangular plate. The overall height is 0.8. The overall width is 2.3. A central slot of width 0.7 is shown, centered horizontally. The drawing uses solid lines for the outer boundaries and dashed lines for the slot and center lines.

Technical drawing of a cathode assembly. The main view shows a rectangular assembly with a central horizontal axis. Dimensions include:

- Top horizontal dimensions: 2.0 ± 0.05 and 4.0 ± 0.1 .
- Bottom horizontal dimension: 4.0 ± 0.1 .
- Right vertical dimensions: 1.75 ± 0.1 , 3.5 ± 0.05 , and $8.0^{+0.30}_{-0.10}$.
- Central feature: A hole with diameter $\varnothing 1.5^{+0.1}_{-0}$.
- Left label: CATHODE with an arrow pointing to the left.

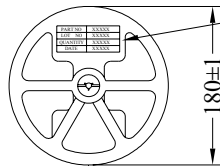
 A cross-section view on the right shows a profile with dimensions 1.8 ± 0.1 and 0.75 ± 0.1 . Below it, another cross-section shows a dimension of 0.95 ± 0.1 .

[illegible]

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

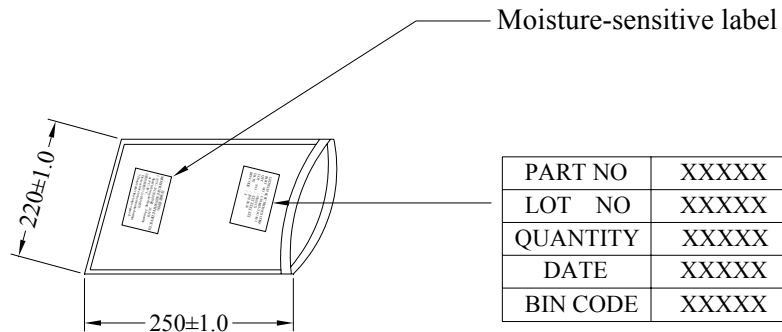
Dimensions for Tape

Reel : 4,000PCS



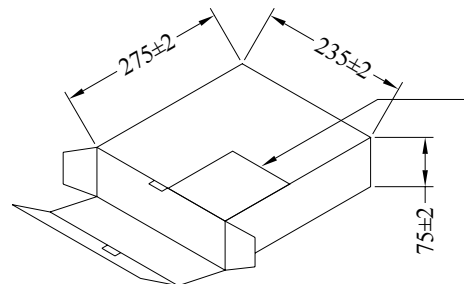
PART NO	XXXXXX
LOT NO	XXXXXX
QUANTITY	XXXXXX
DATE	XXXXXX
BIN CODE	XXXXXX

Bag : 4,000PCS



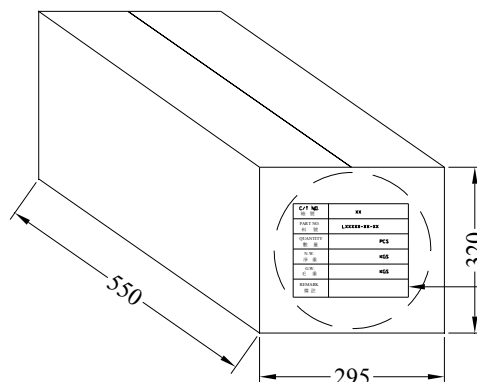
PART NO	XXXXXX
LOT NO	XXXXXX
QUANTITY	XXXXXX
DATE	XXXXXX
BIN CODE	XXXXXX

5 Bags : 20,000PCS



PART NO	XXXXXX
LOT NO	XXXXXX
BIN CODE	XXXXXX
QUANTITY	XXXXXX
DATE	XXXXXX

8 Boxes : 160,000PCS



C/T NO	XX
PART NO	XXXXXX
QUANTITY	PCS
N. W.	KGS
G. W.	KGS
REMARK	

Notes:

- 1.7 inch reel-4000 pieces per reel.
- 2.Minimum packing quantity is 500 pieces for remainders.
- 3.The maximum number of consecutive missing lamps is two.