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SPECIFICATION

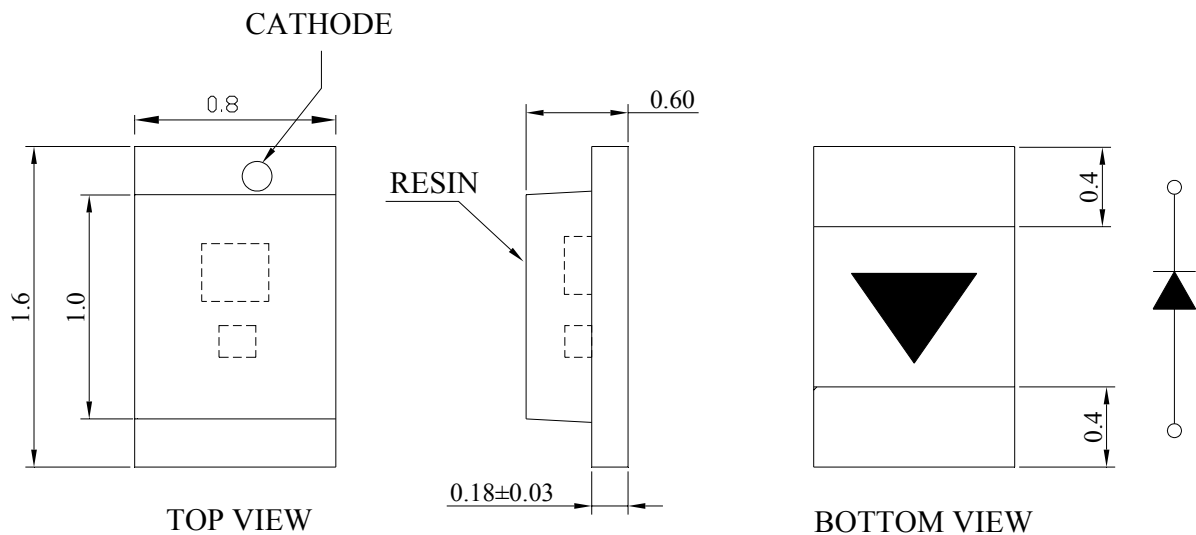
PART NO. : LT8A23-54-UDC9-TE-Z

0603 SMD CHIP LED



Approved by	Checked by	Prepared by
<i>Tung</i>	<i>Andy</i>	<i>Karen</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	
LT8A23-54-UDC9-TE-Z	InGaN/Sapphire	True Green	Water Clear

Absolute Maximum Ratings at Ta=25 °C

Parameter	Symbol	Rating	Unit
Power Dissipation	P _D	120	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.	
Electric Static Discharge	ESD	6000	V

Electrical and Optical Characteristics:

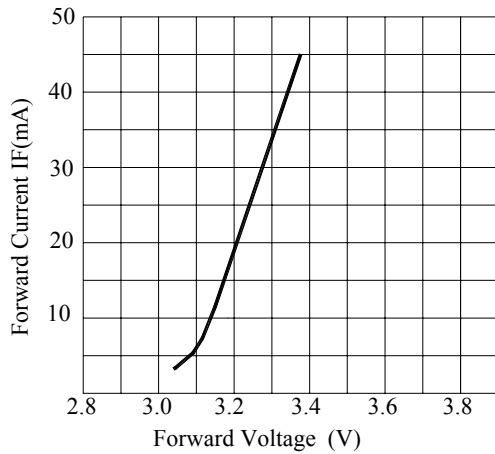
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Intensity	I _v	I _f =20mA	165	300		mcd
Forward Voltage	V _f	I _f =20mA		3.2	4.0	V
Peak Wavelength	λ _p	I _f =20mA		----		nm
Dominant Wavelength	λ _d	I _f =20mA		520		nm
Reverse Current	I _r	V _r =5V			50	μA
Viewing Angle	2 θ 1/2	I _f =20mA		130		deg
Spectrum Line Halfwidth	Δλ	I _f =20mA		35		nm

Notes:1.The datas tested by IS tester.

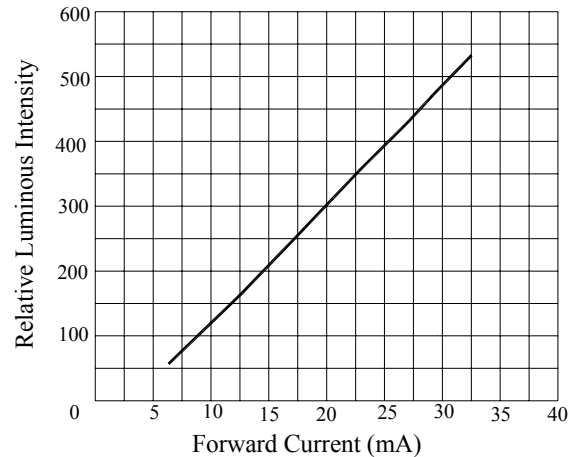
2. Customer's special requirements are also welcome.

Typical Electrical/Optical Characteristic Curves

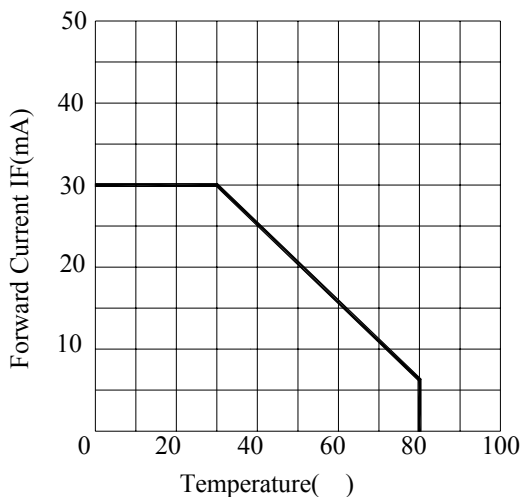
(25°C Ambient Temperature Unless Otherwise Noted)



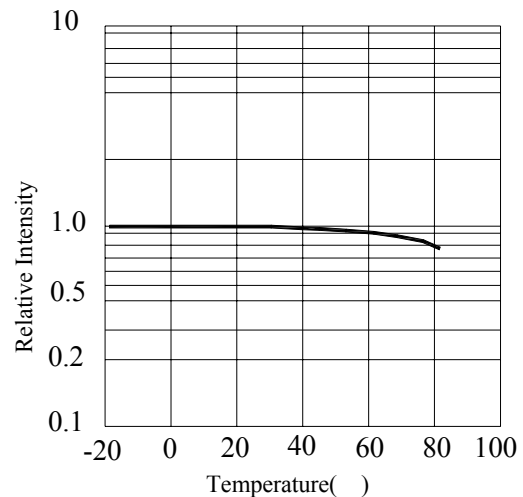
FORWARD CURRENT VS. APPLIED VOLTAGE



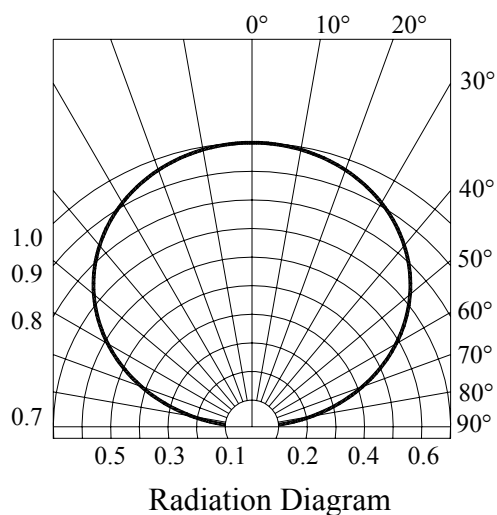
RELATIVE INTENSITY VS. FORWARD CURRENT



FORWARD CURRENT VS. AMBIENT TEMPERATURE



RELATIVE INTENSITY VS. AMBIENT TEMPERATURE



Precautions in Use:

Storage

Recommend storage environment

Temperature : 5 30 (41°F 86°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 ± 5 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.

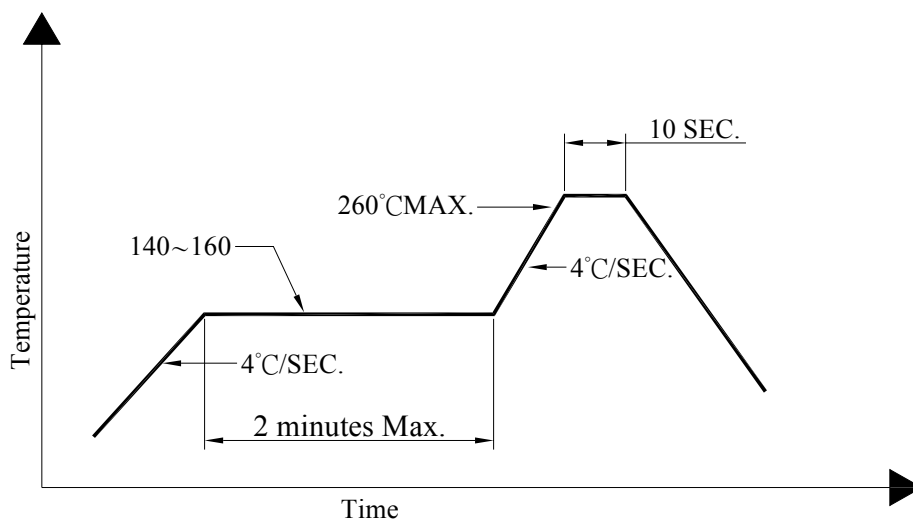
Recommend ultrasonic method 300W Max.

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 mechanical part with dimensions:

- Overall width: 2.3
- Overall height: 0.8
- Distance from left edge to center of the first hole: 0.7
- Distance between the centers of the two holes: 0.8

Technical drawing of a cathode assembly, showing a top view and two cross-sections.

Top View Dimensions:

- Overall width: 2.0 ± 0.05
- Distance between cathodes: 4.0 ± 0.1
- Cathode diameter: $\varnothing 1.5^{+0.1}_{-0}$
- Distance from cathode to anode: 1.75 ± 0.1
- Distance between anodes: 3.5 ± 0.05
- Overall height: $8.0^{+0.30}_{-0.10}$
- Distance from anode to cathode: 4.0 ± 0.1

Cross-section Dimensions:

- Top section height: 1.8 ± 0.1
- Bottom section height: 0.75 ± 0.1
- Distance between sections: 0.95 ± 0.1

The left side of the assembly is labeled **CATHODE**.

Technical drawing of a tape reel showing top, side, and end views with dimensions and labels.

Top View: A circular reel with a diameter of 180 ± 1 . The center features a hub with a central screw and four spokes.

Side View: Shows the reel's profile with a total height of 60 ± 0.5 . The top flange has a thickness of 12 ± 0.5 , and the central hub has a diameter of 9 ± 0.5 . The bottom flange has a diameter of 180 ± 1 .

End View: A rectangular cross-section divided into three regions:

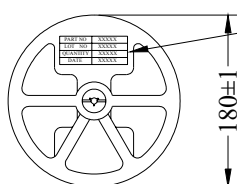
- END:** Labeled "NO COMPONENTS" and "400mm MIN. TRAILER".
- TAPE:** The central section containing the tape, labeled "COMPONENTS".
- START:** Labeled "NO COMPONENTS" and "80mm MIN. LEADER".

 An arrow points from the "COMPONENTS" section towards the "START" section.

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

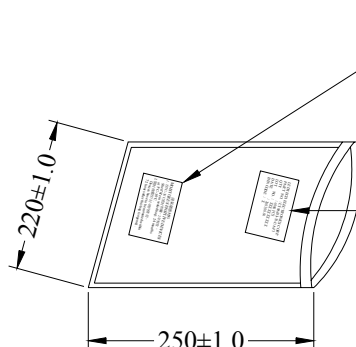
Dimensions for Tape

Reel : 4,000PCS



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

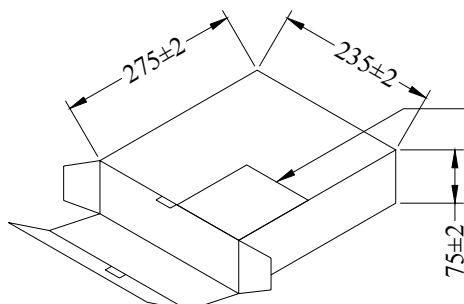
Bag : 4,000PCS



溼氣敏感材料
MOISTURE SENSITIVE DEVICES
1. 在5°C~30°C密封貯藏，2年有效。
Shelf life in sealed bag : 24 months
at 5°C~30°C.
2. 開封後需在168小時內使用。
Devices have to be mounted within
168 hours after this bag is opened .

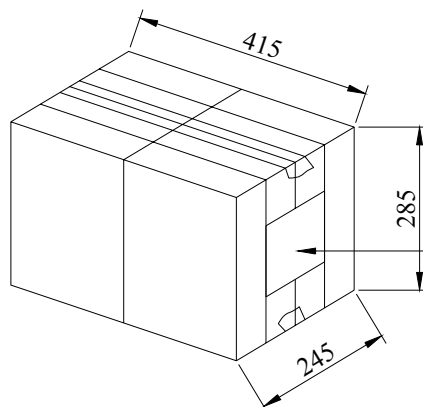
PART NO	XXXXXX
LOT NO	XXXXXX
QUANTITY	XXXXXX
DATE	XXXXXX
BIN CODE	XXXXXX

5 Bags : 20,000PCS



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

5 Boxes : 100,000PCS



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

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.