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SPECIFICATION

PART NO. : LT8AW1-43-UEE3-TD-Z

0805 SMD CHIP LED



Approved by

Checked by

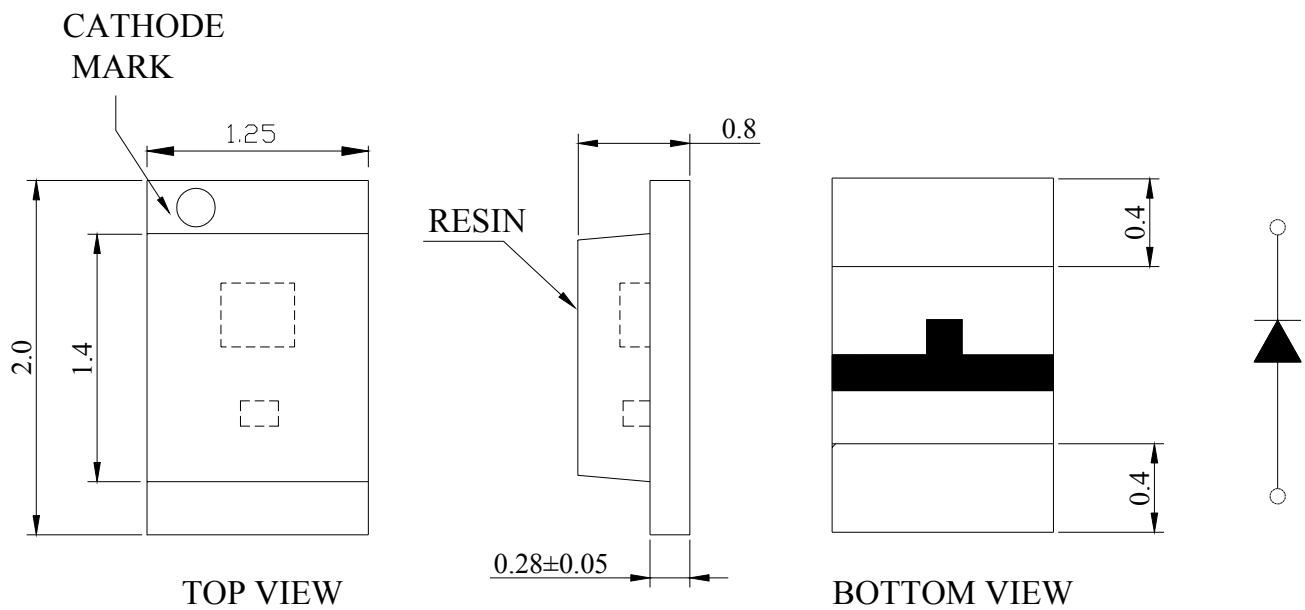
Prepared by

Tung

Andy

Karen

Package Dimensions



Notes:

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

Description

Part No.	LED Chip		Description
	Material	Emitting Color	
LT8AW1-43-UEE3-TD-Z	InGaN/Sapphire	White	Yellow Diffused

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	Topr.	-30 to +80	°C
Storage Temperature Range	Tstg.	-40 to +85	°C
Soldering Temperature.	Tsol.	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	244	400		mcd
Forward Voltage	V _f	I _f =20mA		3.2	4.0	V
CIE Chromaticity Coordinates:X Axis	-	I _f =20mA		0.31		
CIE Chromaticity Coordinates:Y Axis	-	I _f =20mA		0.30		
Reverse Current	I _r	V _r =5V			50	μA
Viewing Angle	2 θ 1/2	I _f =20mA		140		deg
Spectrum Line Halfwidth	Δλ	I _f =20mA		26		nm

Notes:1.The datas tested by IS tester.

2. Customer's special requirements are also welcome.

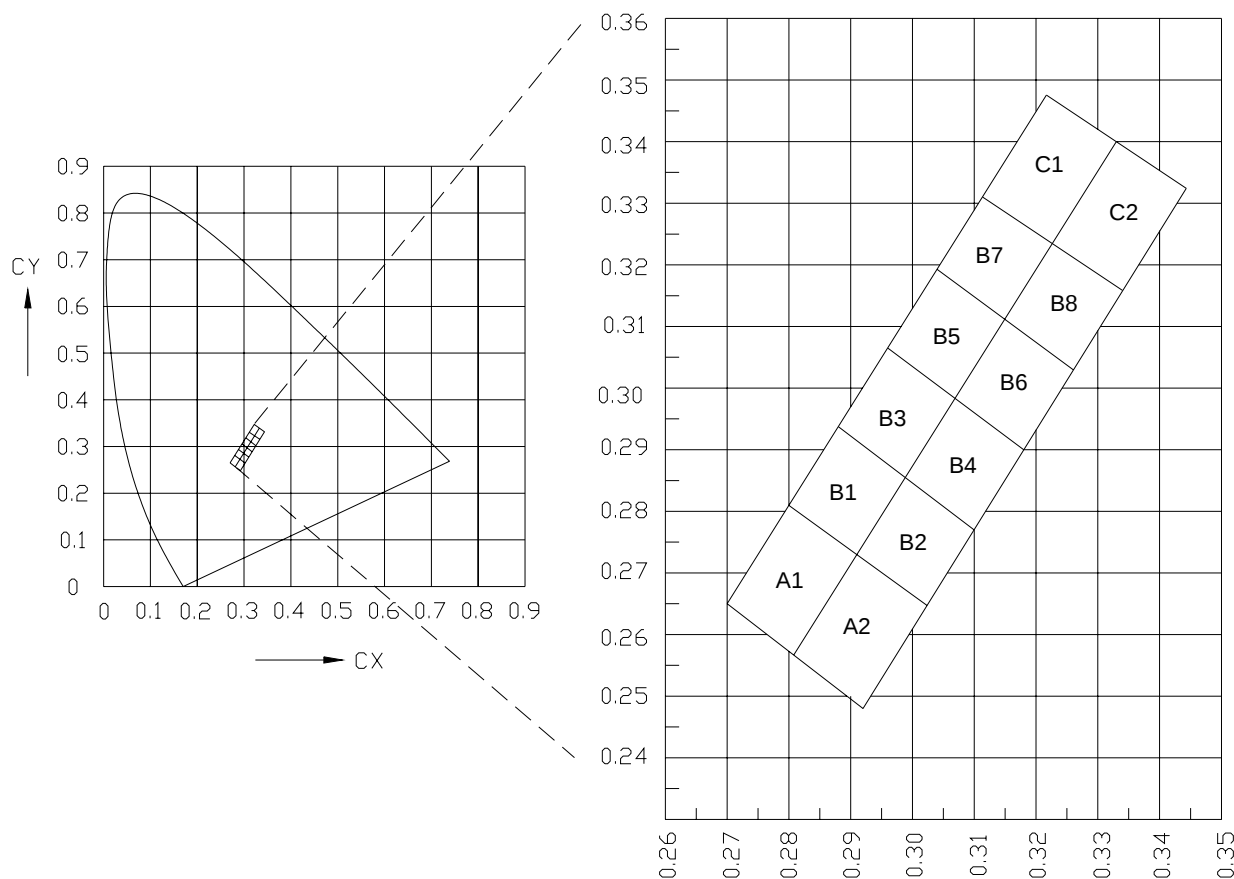
Chromaticity Coordinates Specifications for Bin Grading:

COLOR RANKS(IF=20mA.Ta=25°C)

BiN	RANK					BiN	RANK				
A1	X	0.27	0.28	0.291	0.281	B5	X	0.296	0.304	0.315	0.307
	Y	0.265	0.282	0.273	0.256		Y	0.307	0.319	0.311	0.298
A2	X	0.281	0.291	0.302	0.292	B6	X	0.307	0.315	0.326	0.318
	Y	0.256	0.273	0.265	0.248		Y	0.298	0.311	0.303	0.29
B1	X	0.28	0.288	0.299	0.291	B7	X	0.304	0.312	0.323	0.315
	Y	0.282	0.294	0.286	0.273		Y	0.319	0.331	0.323	0.311
B2	X	0.291	0.299	0.31	0.302	B8	X	0.315	0.323	0.334	0.326
	Y	0.273	0.286	0.277	0.265		Y	0.311	0.323	0.315	0.303
B3	X	0.288	0.296	0.307	0.299	C1	X	0.312	0.322	0.333	0.323
	Y	0.294	0.307	0.298	0.286		Y	0.331	0.348	0.34	0.323
B4	X	0.299	0.307	0.318	0.31	C2	X	0.323	0.333	0.344	0.334
	Y	0.286	0.298	0.29	0.277		Y	0.323	0.34	0.332	0.315

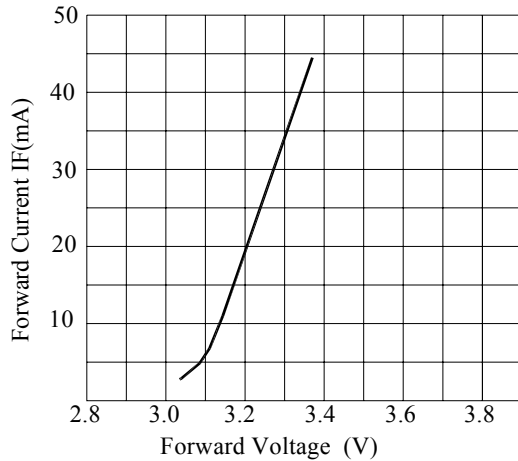
Notes:X.Y Tolereanceeach Bin limit is ± 0.01 .

Chromaticity Coordinates & Bin grading diagram:

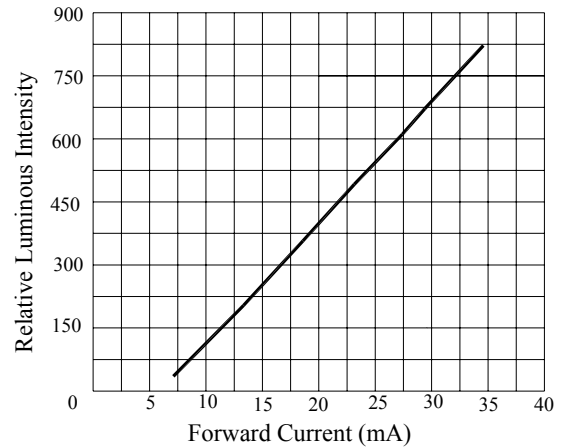


Typical Electrical/Optical Characteristic Curves

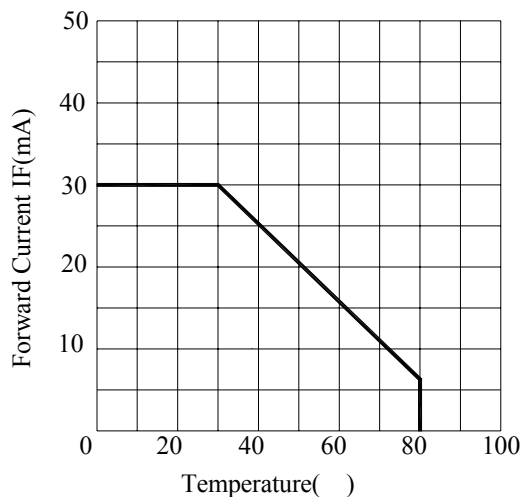
(25°C Ambient Temperature Unless Otherwise Noted)



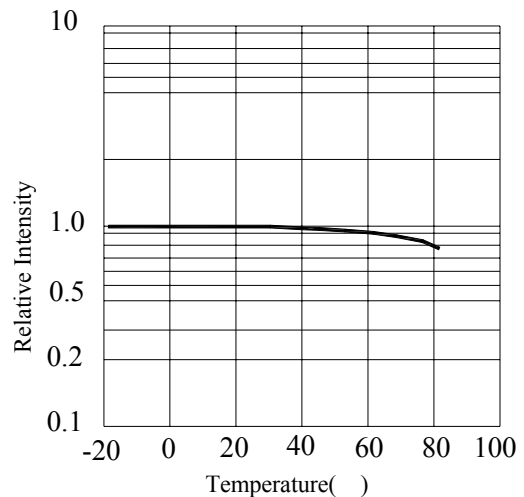
FORWARD CURRENT VS. APPLIED VOLTAGE



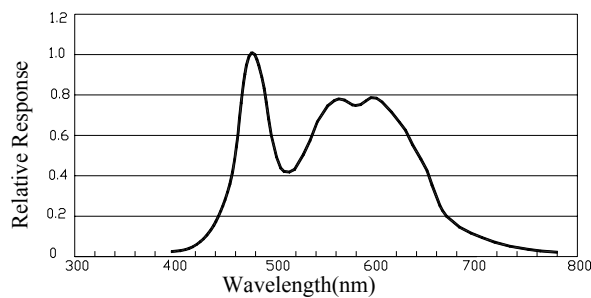
RELATIVE INTENSITY VS. FORWARD CURRENT



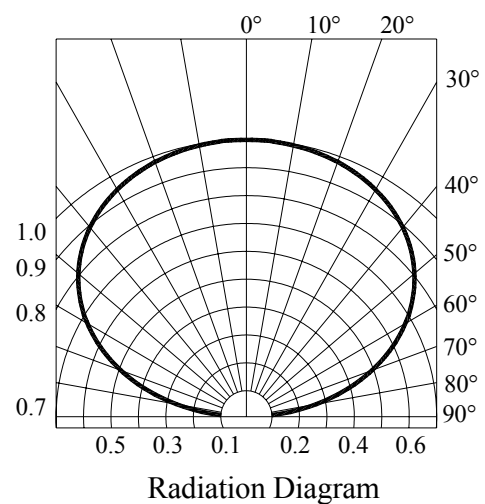
FORWARD CURRENT VS. AMBIENT TEMPERATURE



RELATIVE INTENSITY VS. AMBIENT TEMPERATURE



WHITE LED SPECTRUM VS. WAVELENGTH



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.

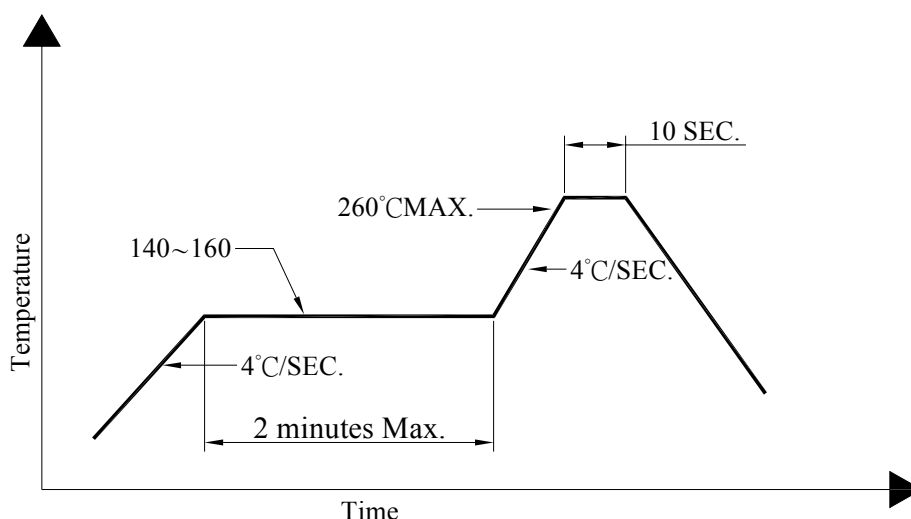
Recommend ultrasonic method 300W Max.

Packaging

EIA-481A standard package.

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

Reflow Temp/Time:

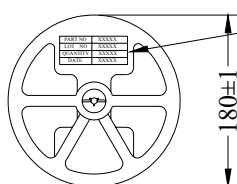


[illegible]

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

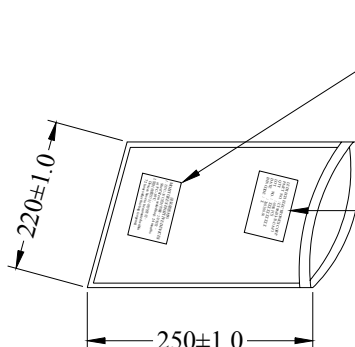
Dimensions for Tape

Reel : 4,000PCS



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

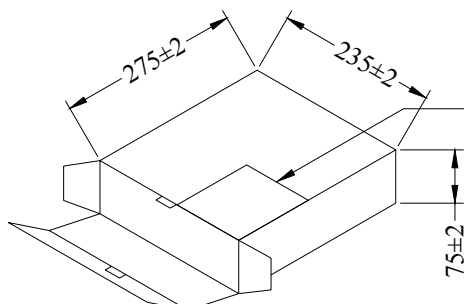
Bag : 4,000PCS



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 .

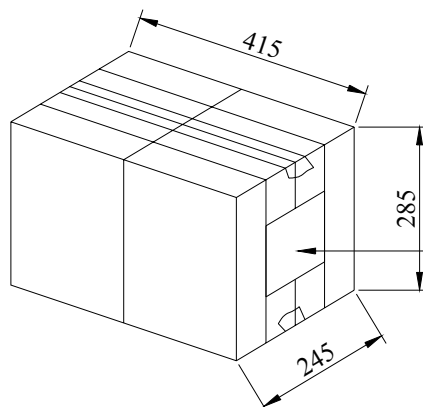
PART NO	XXXXXX
LOT NO	XXXXXX
QUANTITY	XXXXXX
DATE	XXXXXX
BIN CODE	XXXXXX

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.