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# SPECIFICATION

*PART NO. : LT8AW1-43-UDE3-A66TD*

**0805 SMD CHIP LED**



Approved by

Checked by

Prepared by

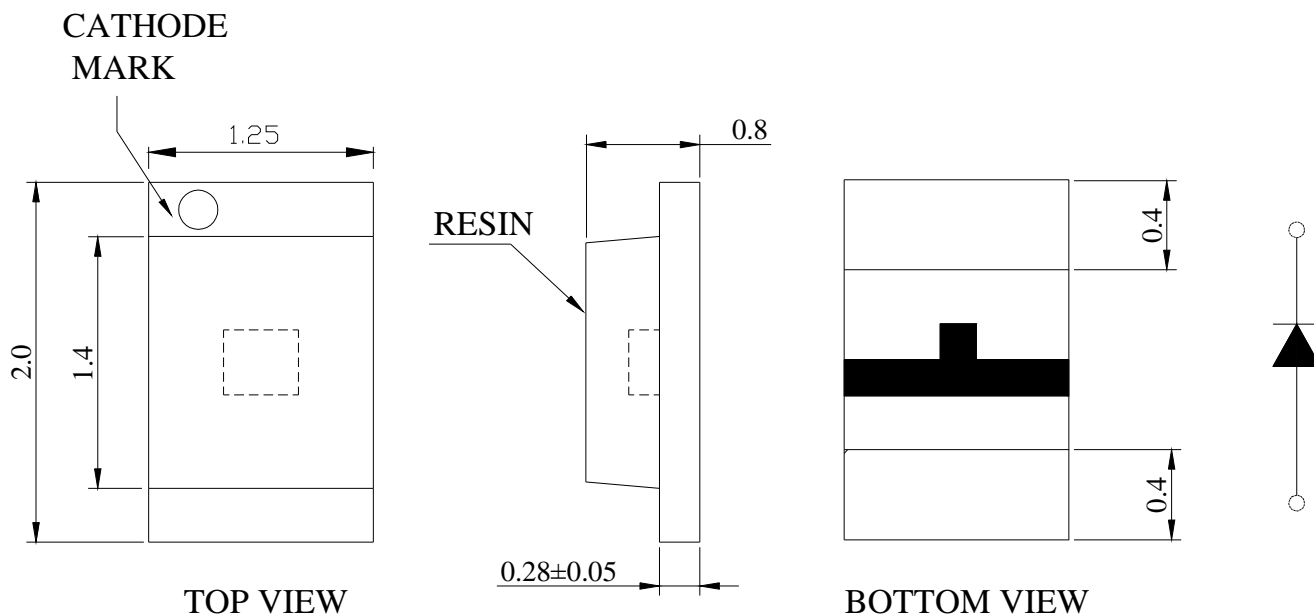
*Yeu*

*Lian*

*Dai*



### Package Dimensions



#### Notes:

1. All dimensions are in mm.
2. Tolerance is  $\pm 0.1$ mm unless otherwise noted.

### Description

Part No.	LED Chip		Lens Color
	Material	Emitting Color	
LT8AW1-43-UDE3-A66TD	InGaN/Sapphire	White	Yellow diffused

**Absolute Maximum Ratings at Ta=25 °C**

Parameter	Symbol	Rating	Unit
Power Dissipation	P <sub>D</sub>	102	mW
Reverse Voltage	V <sub>R</sub>	5	V
D.C. Forward Current	I <sub>f</sub>	30	mA
Peak Current(1/10Duty Cycle,0.1ms Pulse Width.)	I <sub>f</sub> (Peak)	80	mA
Operating Temperature Range	T <sub>opr.</sub>	-30 to +80	°C
Storage Temperature Range	T <sub>stg.</sub>	-40 to +85	°C
Soldering Temperature.	T <sub>sol.</sub>	Reflow Soldering:260°C for 10 sec.	
Electric Static Discharge	ESD	300	V

**Electrical and Optical Characteristics:**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Intensity	I <sub>v</sub>	I <sub>f</sub> =20mA	367	750	1000	mcd
Forward Voltage	V <sub>f</sub>	I <sub>f</sub> =20mA	2.8	3.0	3.4	V
CIE Chromaticity Coordinates:X Axis	-	I <sub>f</sub> =20mA		0.31		
CIE Chromaticity Coordinates:Y Axis	-	I <sub>f</sub> =20mA		0.30		
Reverse Current	I <sub>r</sub>	V <sub>r</sub> =5V			50	μA
Viewing Angle	2θ 1/2	I <sub>f</sub> =20mA		140		deg

Notes:1.Tolerance of Luminous Intensity is ±15%

2.Tolerance of Forward Voltage is ±0.1V

3. X.Y Tolerance each Bin limit is±0.01.

**Specifications for Bin Grading:**

<b>Iv(mcd)</b>		
<b>BIN</b>	<b>MIN.</b>	<b>MAX.</b>
X	367	516
Y	516	756
Z	756	1100

**Specifications for Vf Group:**

<b>Vf(V)</b>		
<b>Group</b>	<b>MIN.</b>	<b>MAX.</b>
M	2.8	3.0
N	3.0	3.2
P	3.2	3.4

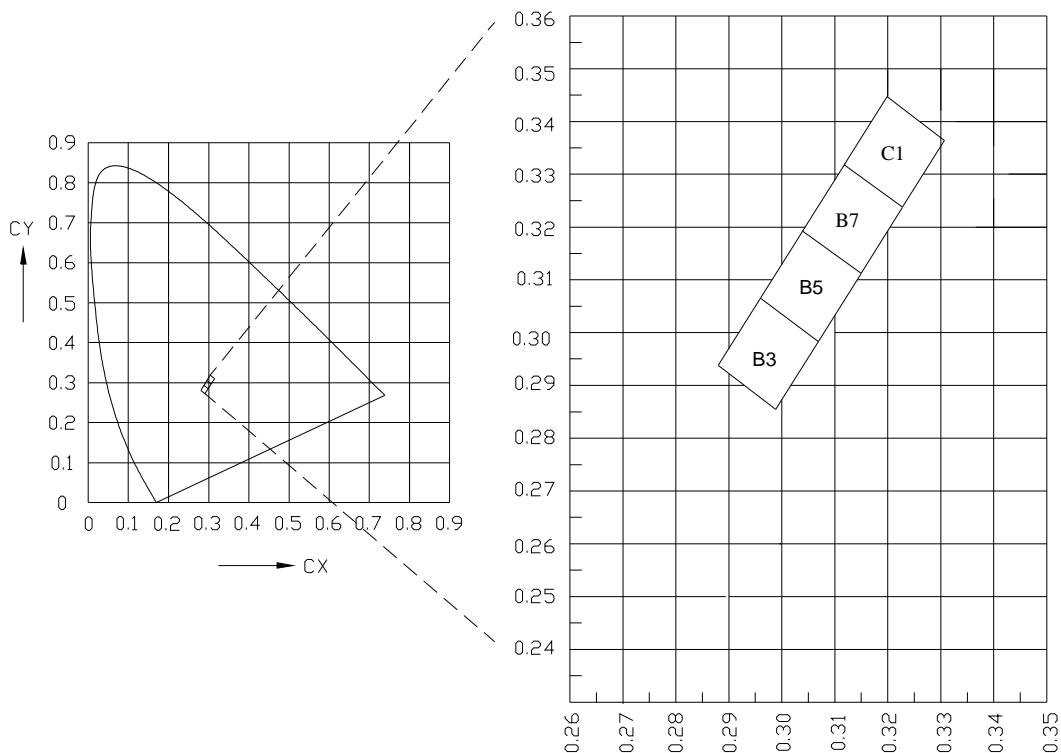
### Chromaticity Coordinates Specifications for Bin Grading:

COLOR RANKS(IF=20mA.Ta=25°C)

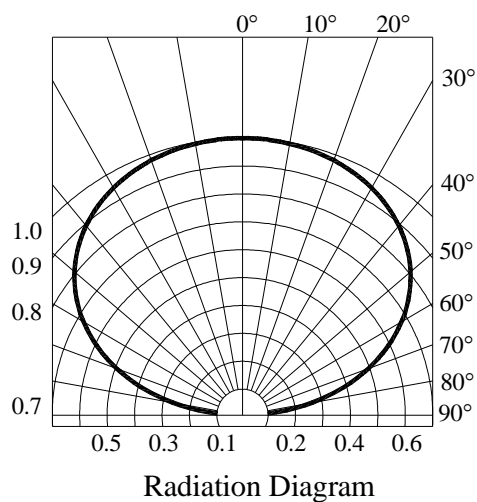
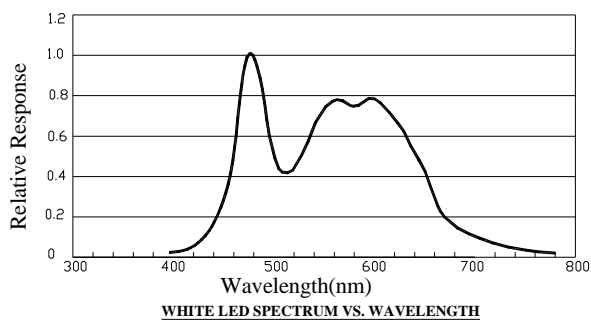
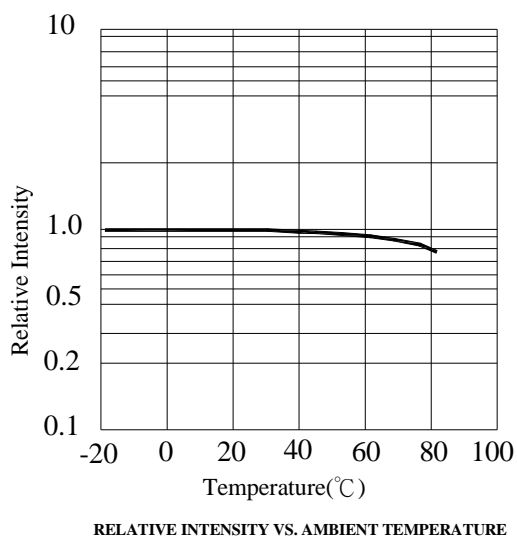
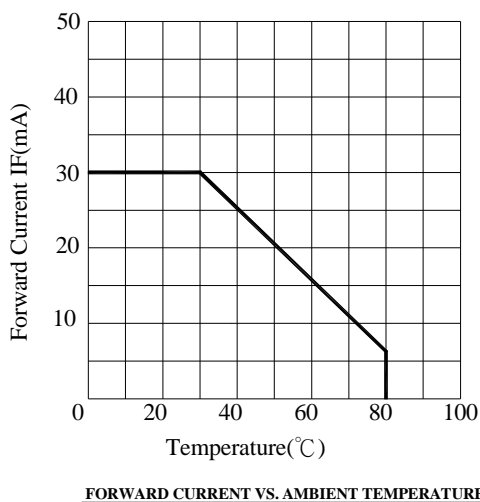
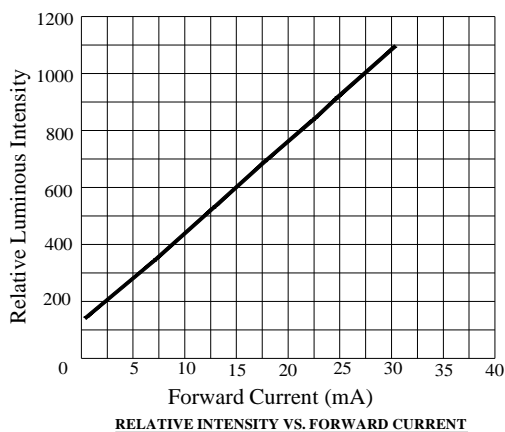
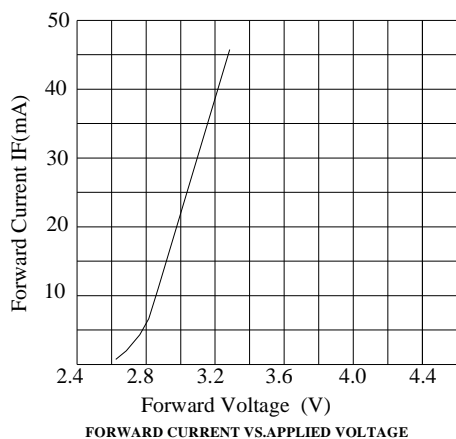
BIN	RANK				
B3	X	0.288	0.296	0.307	0.299
	Y	0.294	0.307	0.298	0.286
B5	X	0.296	0.304	0.315	0.307
	Y	0.307	0.319	0.311	0.298
B7	X	0.304	0.312	0.323	0.315
	Y	0.319	0.331	0.323	0.311
C1	X	0.312	0.322	0.333	0.323
	Y	0.331	0.348	0.34	0.323

Notes:X.Y Tolereance each Bin limit is±0.01.

### Chromaticity Coordinates & Bin grading diagram:



## Typical Electrical/Optical Characteristic Curves (25°C Ambient Temperature Unless Otherwise Noted)



## Precautions in Use:

### Storage

Recommend storage environment

Temperature : 5°C ~30°C (41°F~86°F)

Humidity : 60% RH Max.

Use within 7 days after opening of sealed vapor/ESD barrier bags.

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 5 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.

#### Manual Iron Soldering (NOT RECOMMENDED)

Use SN60 solder of solder with silver content.

Use 25W soldering iron at 300°C (570°F) Max for 5 seconds or less.

Must not touch top resin portion of SMD LED by heated soldering iron.

### Cleaning

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

Avoid using organic solvent.

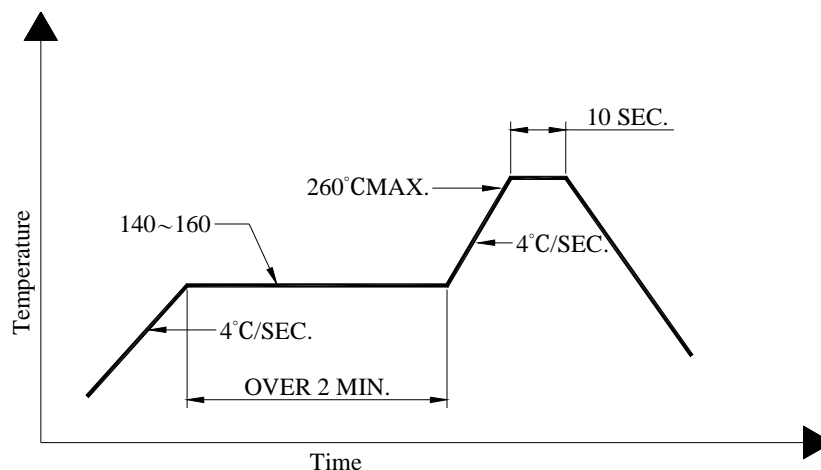
Recommend ultrasonic method 300W Max.

### Packaging

EIA-481A standard package.

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

## Reflow Temp/Time:

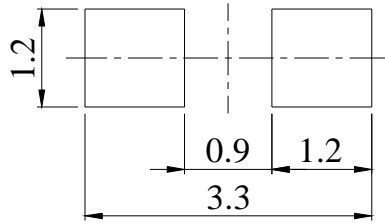




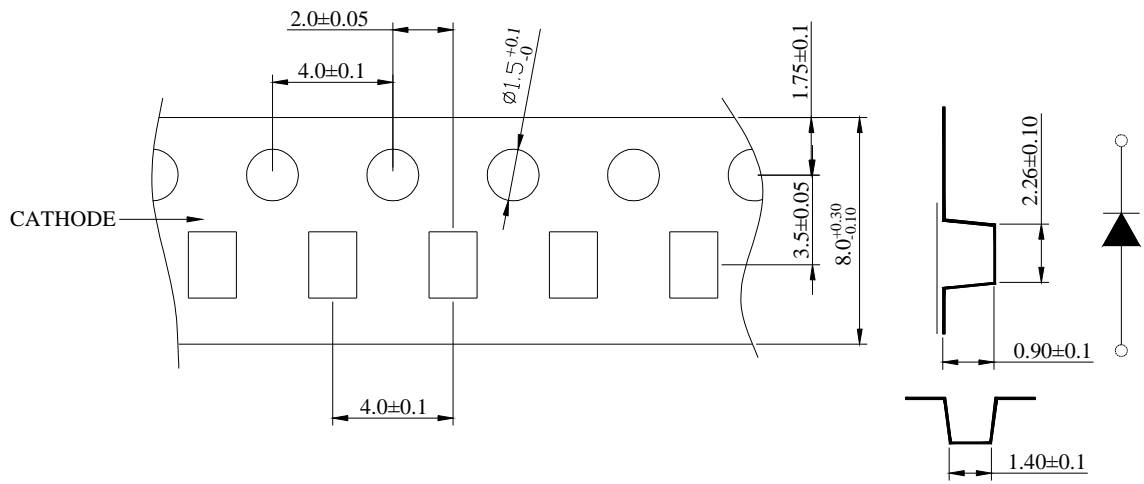
**DISCLAIMER**

- 1. Our department reserves the right(s) on the adjustment of product material mix for the specification.**
- 2. The product meets our department published specification for a period of twelve (12) months from date of shipment.**
- 3. The graphs shown in this datasheet are representing typical data only and do not show guaranteed values.**
- 4. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. Our department assumes no responsibility for any damage resulting from the use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.**
- 5. These specification sheets include materials protected under copyright of our department. Reproduction in any form is prohibited without obtaining our department's prior consent.**
- 6. This product is not intended to be used for military, aircraft, automotive, medical, life sustaining or life saving applications or any other application which can result in human injury or death. Please contact authorized our department sales agent for special application request.**

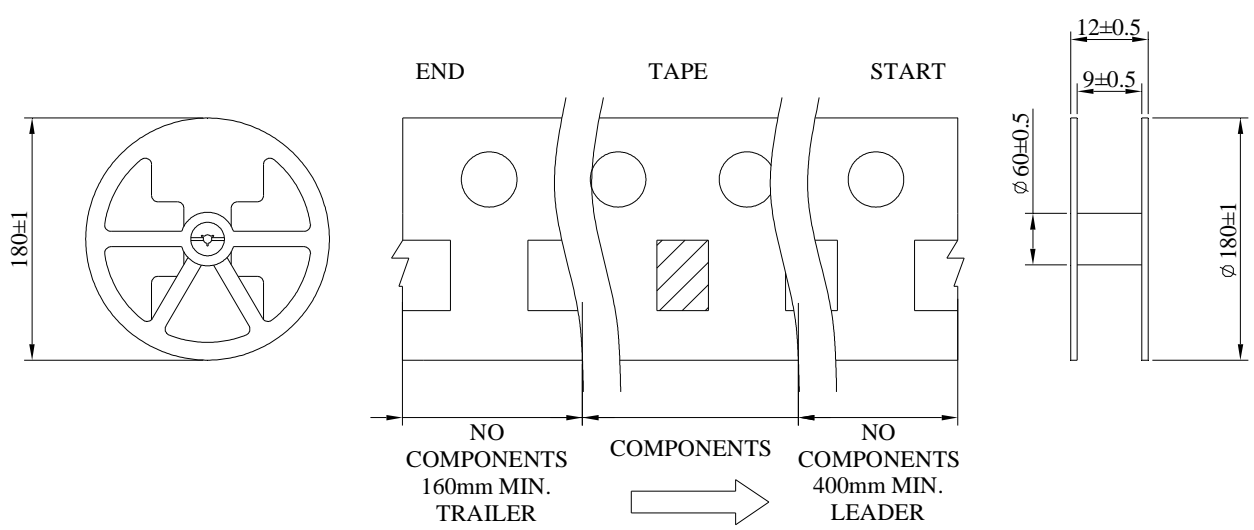
### Reflow Soldering Pad Dimensions



### Dimensions for Tape



### Dimensions for Reel

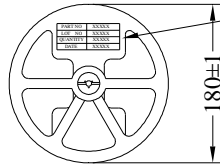


#### Notes:

1. All Dimensions are in mm, tolerance is ±2.0mm unless otherwise noted.
2. Specifications are subject to change without notice.

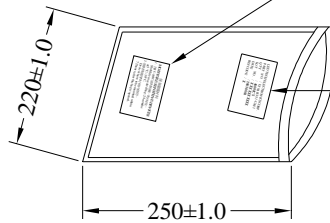
**Dimensions for Tape**

**Reel : 4,000PCS**



PART NO	XXXXX
LOT NO	XXXXX
QUANTITY	XXXXX
DATE	XXXXX
BIN CODE	XXXXX

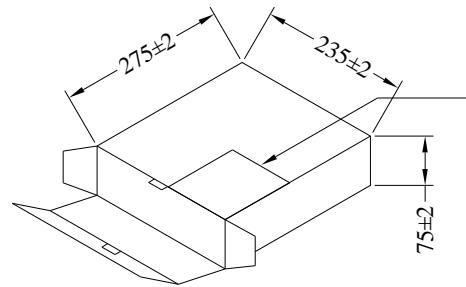
**Bag : 4,000PCS**



Moisture-sensitive label

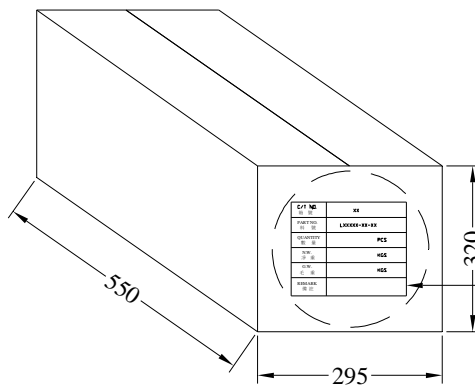
PART NO	XXXXX
LOT NO	XXXXX
QUANTITY	XXXXX
DATE	XXXXX
BIN CODE	XXXXX

**5 Bags : 20,000PCS**



PART NO	XXXXX
LOT NO	XXXXX
BIN CODE	XXXXX
QUANTITY	XXXXX
DATE	XXXXX

**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.