

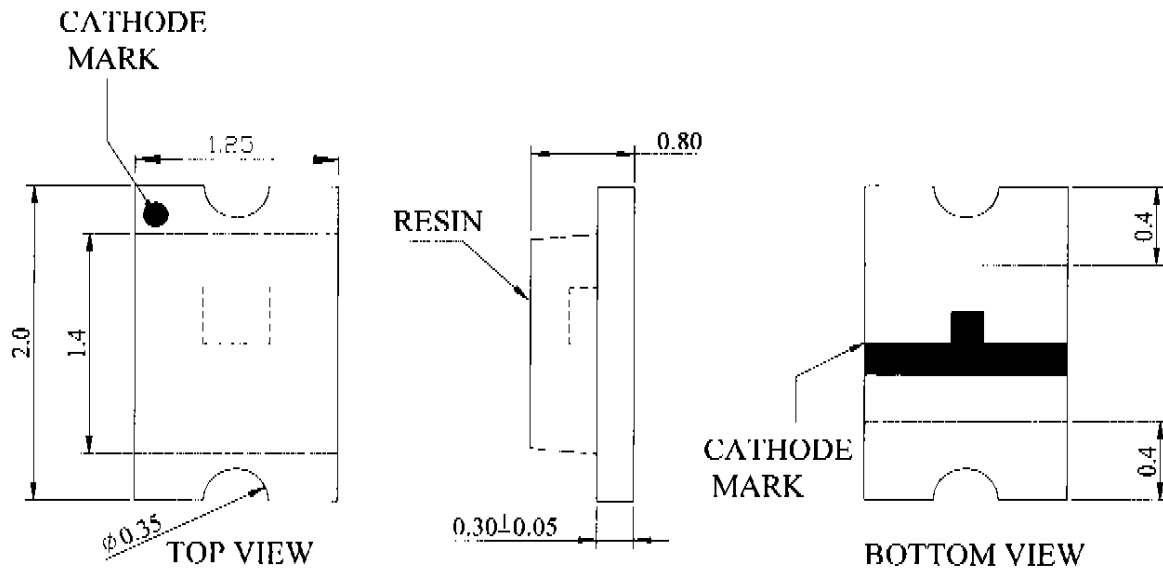
Features

- * Package in 8mm tape on 7" diameter reels
- * Industry standard footprint
- * For automatic placement equipments
- * For infrared and vapor phase reflow solder processes
- * Long life solid state reliability
- * IC compatible
- * JEDEC precondition stress tested

Applications

- * LCD backlighting
- * Push-button / Keypad backlighting
- * Symbol backlighting
- * Strip lighting
- * Automobile front panel indicating and backlighting
- * Miniature dot matrix displays

Package Dimensions



Notes:

1. All dimensions are in mm.
2. Tolerance is ± 0.10 mm unless otherwise noted.

Part No.	LED Chip		Description
	Material	Emitting Color	
LT8AB3-41-UAE5-TD	InGaN/Sapphire	Blue	Water Clear

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	78	mW
Reverse Voltage	Vr	5	V
D.C. Forward Current	If	20	mA
Peak Current(1/10 duty,0.1ms pulse width)	If(Peak)	80	mA
Operating Temperature Range	Topr	-30 to +80	°C
Storage Temperature Range	Tstg	-40 to +85	°C
Lead Soldering Temp.(1.6mm from body) for 5seconds		260	°C

Electrical and Optical Characteristics :

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Intensity	Iv	If=5mA	4.5	12.5		mcđ
		If=20mA	24.4	50.0		mcđ
Forward Voltage	Vf	If=20mA	2.8		4.0	V
Peak Wavelength	λp	If=20mA		468		nm
Dominant Wavelength	λd	If=20mA		470		nm
Reverse Current	Ir	Vr=5V			100	μA
Viewing Angle	$2\theta 1/2$	If=20mA		130		deg
Spectral Line Halfwidth	$\Delta \lambda$	If=20mA		26		nm



**0805 SMD CHIP LED
LT8AB3-41-UAE5-TD**

Product Specification

	Specification	Material	Quantity
Iv	B12:24.4-36.7mcd B13:36.7-51.6mcd B14:51.6-75.6mcd B15:75.6-110mcd		
λd	02:455-460nm 03:460-465nm 04:465-470nm 05:470-475nm 06:475-480nm 07:480-485nm		
Vf	2.8-4.0V@20mA		
Ir	<100uA@Vr=5V		
Resin	Water clear	Epoxy resin	
Carrier tape		Conductive black tape	4000pcs per reel
Reel		White	
Label	LT standard	Paper	
Packing bag	250x220mm	Aluminum laminated bag	One reel one bag
Carton	LT standard	Paper	Non-specified
Others:			



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Description of Model No.and Lot No.

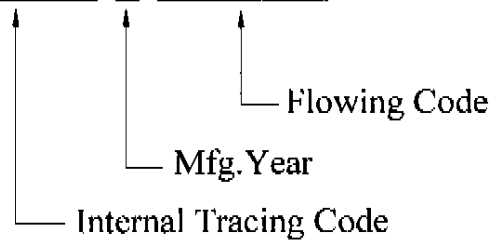
Model No.

L T 8 A B 3 - 4 1 - U A E 5 - T D
 a b c d e f g h i

Code a	Code b	Code c	Code d	Code e	Code f	Code g	Code h	Code i
	Emitting Color	Resin Color	PCB Size	Thickness	Brightness	Chip Size	Chip Wavelength	Packaging
Chip LED for PCB	1:Red 2:Green 3:Yellow A:Amber B:Blue	3:Water Clear	1:1204 2:1210 3:1206 4:0805 5:0603	1:0.80mm 2:1.25mm	UA: B12-B15 8:8mil 9:9mil A:10mil B:11mil 455-485nm	TD: ESD Packaging

Lot No.

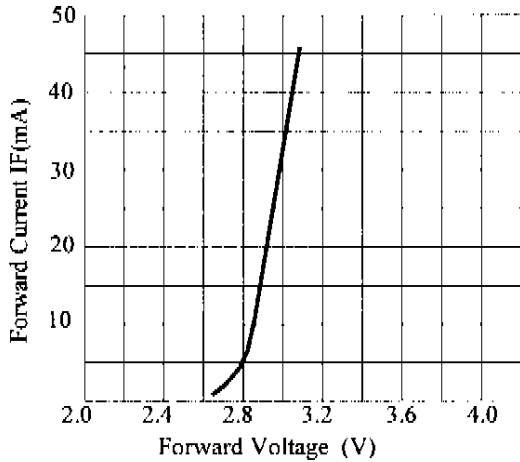
W O Z A 3 0 0 0 6 2



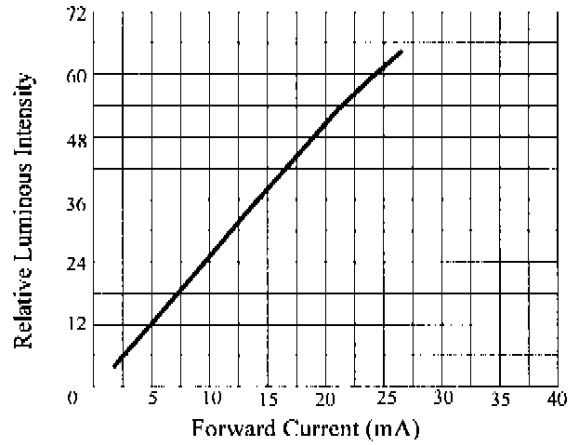


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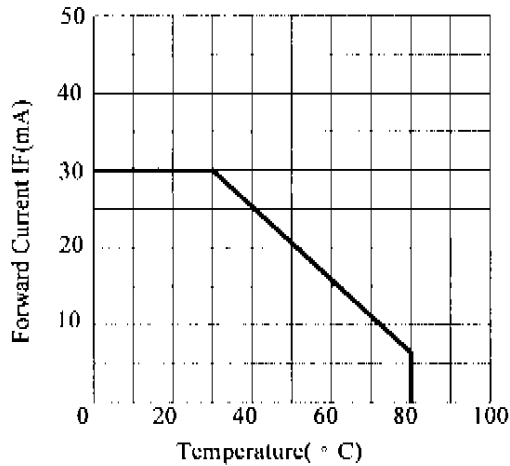
Typical Electrical/Optical Characteristic Curves (25°C Ambient Temperature Unless Otherwise Noted)



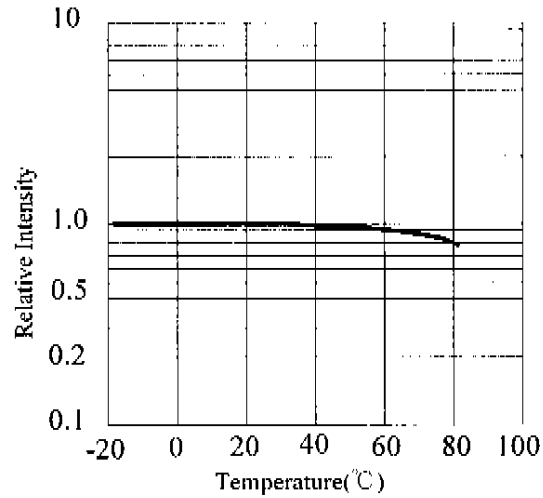
FORWARD CURRENT VS. APPLIED VOLTAGE



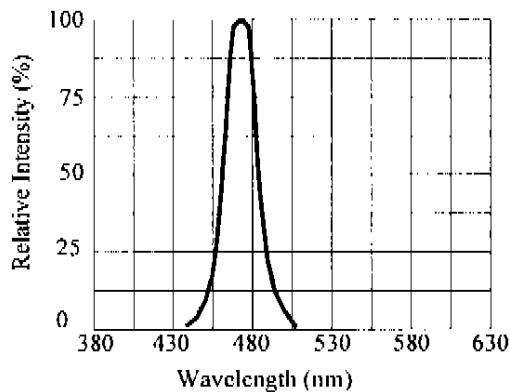
RELATIVE INTENSITY VS. FORWARD CURRENT



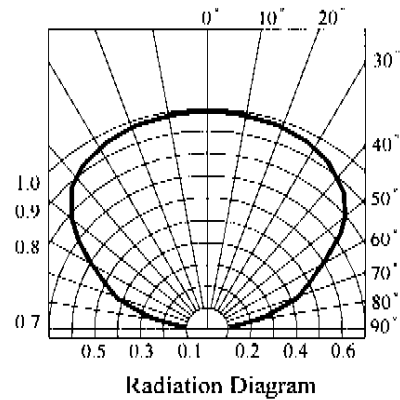
FORWARD CURRENT VS. AMBIENT TEMPERATURE



RELATIVE INTENSITY VS. AMBIENT TEMPERATURE

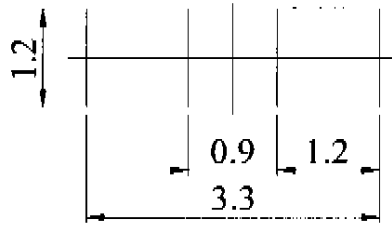


RELATIVE INTENSITY VS. WAVELENGTH

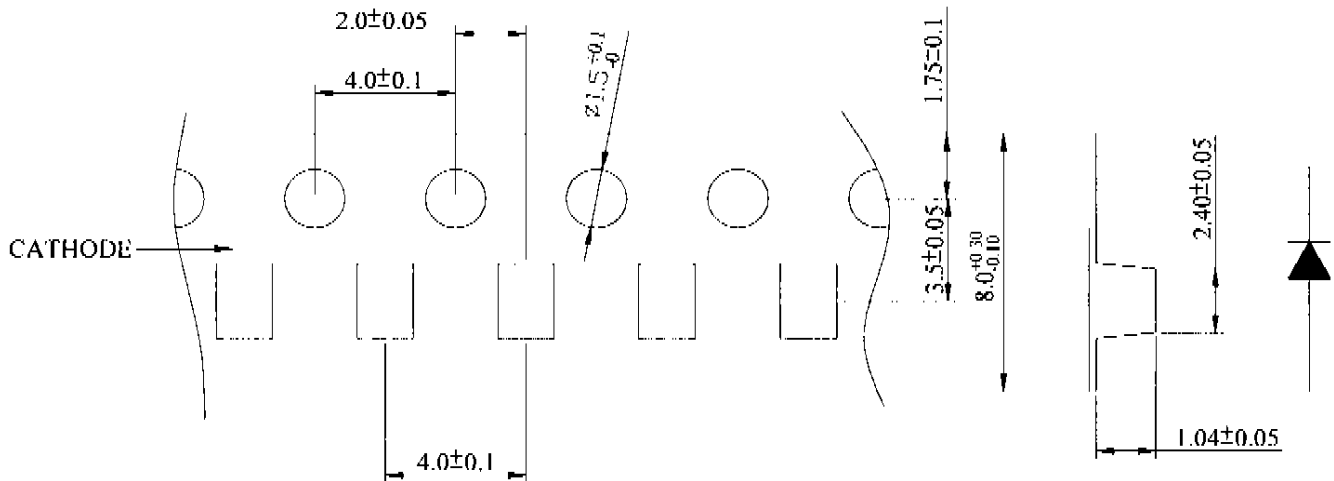


Radiation Diagram

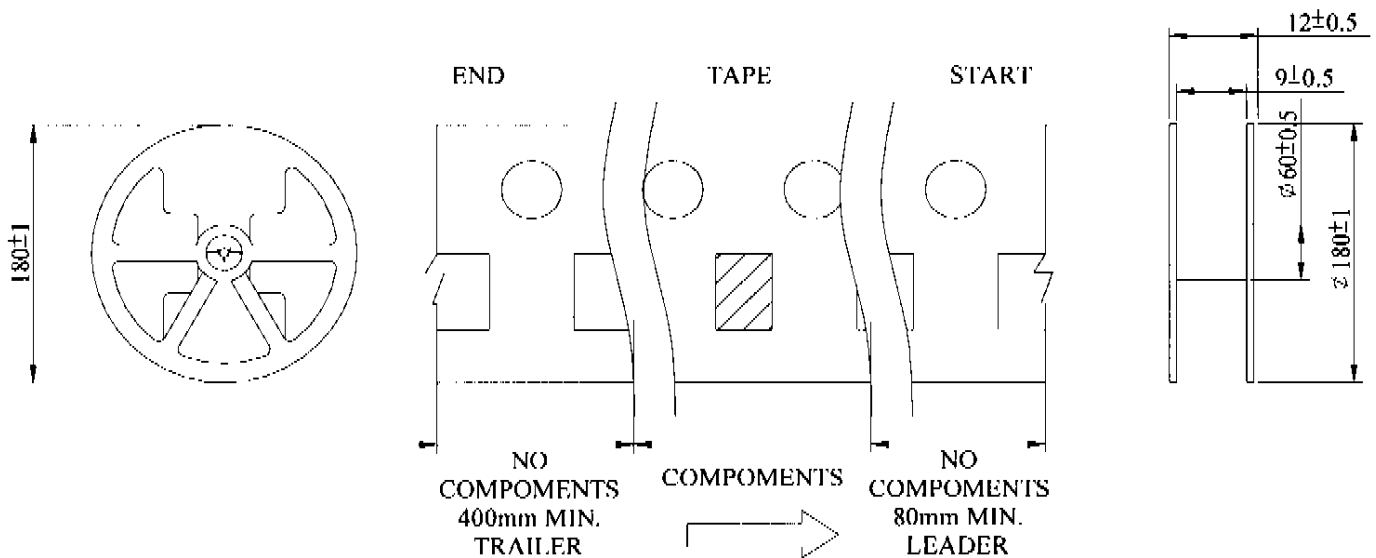
Reflow Soldering Pad Dimensions



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

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 or 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.

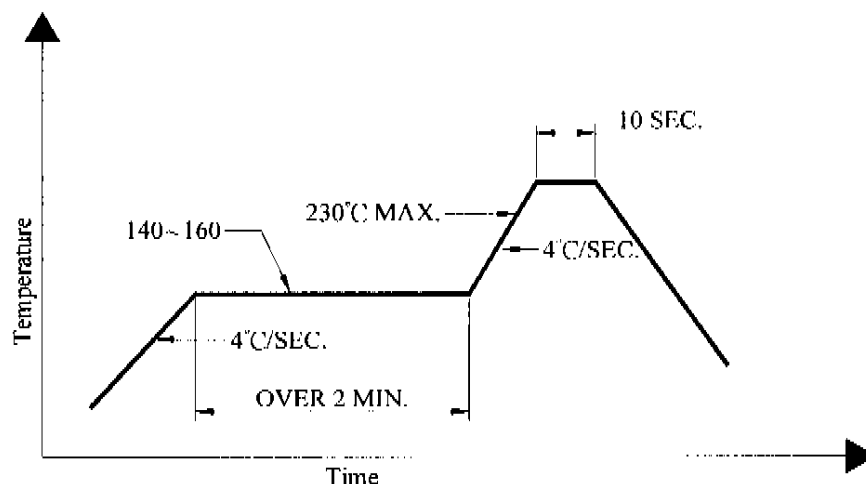
Recommend ultrasonic method 300W Max.

Packaging

EIA-481A standard package.

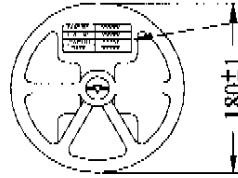
In 8mm tape on 4000 pcs diameter reels sealed in vapor/ESD barrier bags.

Reflow Temp/Time :



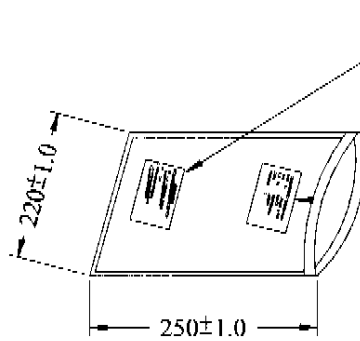
Dimensions for Tape

Reel : 4,000PCS



PART NO	XXXXX
LOT NO	XXXXX
QUANTITY	XXXXX
DATE	XXXXX

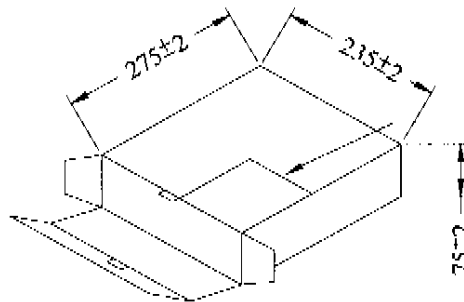
Bag : 4,000PCS



濕氣敏感材料
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72小時內使用。
Devices have to be mounted within
72 hours after this bag is opened.

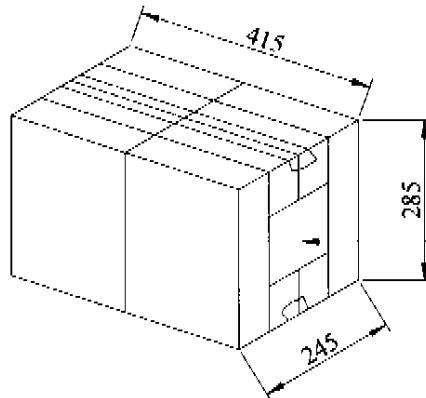
PART NO	XXXXX
LOT NO	XXXXX
QUANTITY	XXXXX
DATE	XXXXX

5 Bags : 20,000PCS



PART NO	XXXXX
LOT NO	XXXXX
QUANTITY	XXXXX
DATE	XXXXX

5 Boxes : 100,000PCS



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

Notes:

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Reliability Test Method:

Test Item	Frequency/lots/samples/ failures	Standards Reference	Conditions
Precondition	For all reliability Monitoring tests according to JEDEC level 2	J-STD-020	1.) Baking at 85°C for 24hrs 2.) Moisture storage at 85°C/60% R.H. for 168hrs
Solderability	1Q/1/22/0	JESD22-B102-B and CNS-5068	Accelerated aging 155°C/24hrs Tinning speed : 2.5±0.5cm/s Tinning : A : 215°C/3±1s or B : 260°C/10±1s
Resistance to soldering heat		CNS-5067	Dipping soldering terminal only Soldering bath temperature A : 260±5°C ; 10±1s B : 350±10°C ; 3±0.5s
Operating life test	1Q/1/40/0	CNS-11829	1.) Precondition : 85°C baking for 24hrs 85°C / 60% R.H. for 168hrs 2.) Tamb25°C ; I _r =20mA ; duration 1000hrs
High humidity,high temperature bias	1Q/1/45/0	JESD-A101-B	Tamb85°C Humidity : 85% R.H., I _r =20mA Duration : 1000hrs
High temperature bias	1Q/1/20	IIT specs.	Tamb55°C I _r =20mA Duration : 1000hrs
Pulse life test	1Q/1/40/0		Tamb25°C, I _F =20mA, I _P =100mA, Duty cycle=0.125 (tp=125us, T=1sec) Duration : 500hrs
Temperature cycle	1Q/1/76/0	JESD-A104-A IEC 68-2-14,Nb	A cycle : -40 degree C 15min; +85 degree C 15 min Thermal steady within 5 min.. 300 cycles 2 chamber / Air-to-air type
High humidity storage test	1Q/1/40/0	CNS-6117	60±3°C 90+5/-10% R.H. for 500hrs
High temperature storage test	1Q/1/40/0	CNS-554	100±10°C for 500hrs
Low temperature storage test	1Q/1/40/0	CNS-6118	-40±5°C for 500hrs