



LEDTECH ELECTRONICS CORP.

NANYA ROAD,MUGANG ZHAOQING
CITY GUANGDONG CHINA.

TEL:86-758-2875541,2870651,2877464,2876185,2877017

FAX:86-758-2878014

Http://www.ledtech.com.tw

SPECIFICATION

PART NO. : LT8A22-43-T4
0805 SMD CHIP LED

Approved by

Checked by

Prepared by

Jack

Dodo

Danny



0805 SMD CHIP LED LT8A22-43-T4

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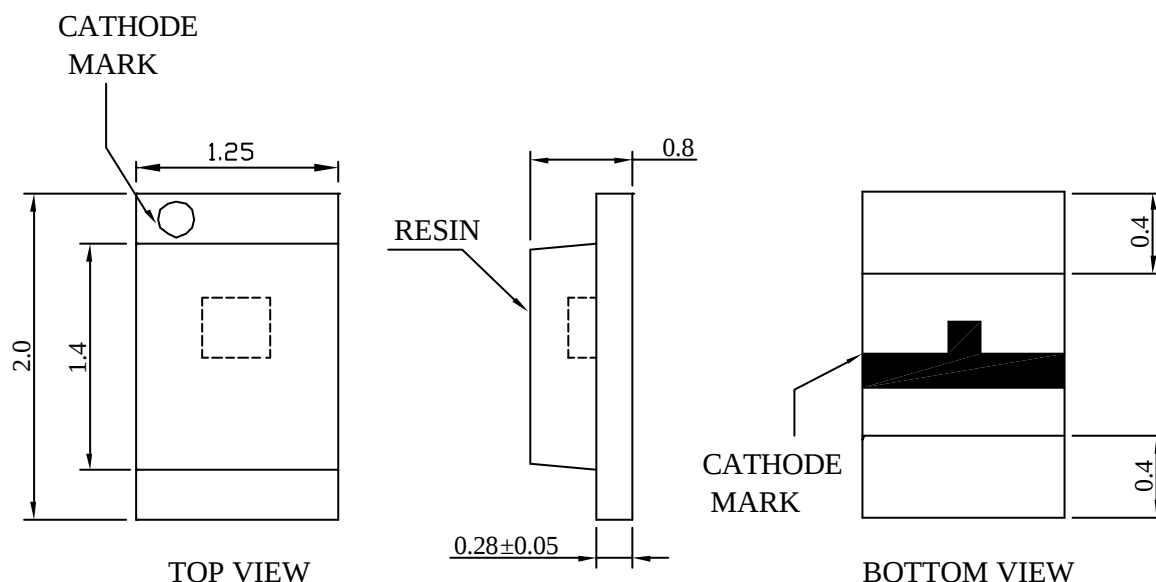
Features

- * 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	
LT8A22-43-T4	GaP/GaP	Green	White diffused



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Absolute Maximum Ratings at Ta=25

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	78	mW
Reverse Voltage	Vr	5	V
D.C. Forward Current	If	30	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

Electrical and Optical Characteristics :

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Intensity	Iv	If=20mA		11		mcd
Forward Voltage	Vf	If=20mA	1.9		2.6	V
Peak Wavelength	λ_p	If=20mA		567		nm
Dominant Wavelength	λ_d	If=20mA		572		nm
Reverse Current	Ir	Vr=5V			100	μA
Viewing Angle	2 θ 1/2	If=20mA		140		deg
Spectral Line Halfwidth	$\Delta \lambda$	If=20mA		30		nm



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Product Specification

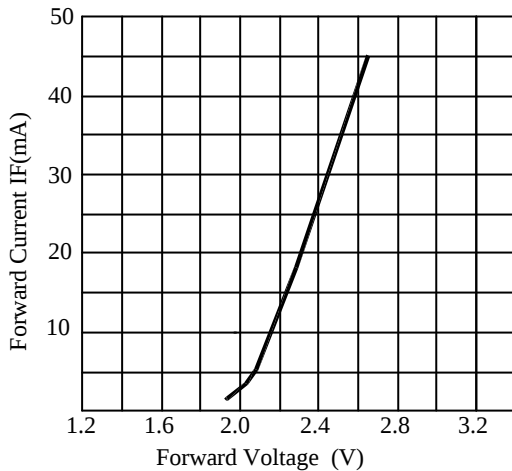
	Specfication	Material	Quantity
Iv	L:5.16-7.56mcd M:7.56-11.0mcd N:11.0-16.5mcd @20mA		
λ d	566-577nm @20mA		
Vf	H:1.9-2.2V J: 2.2-2.4V K:2.4-2.6V @20mA		
Ir	<100uA@Vr=5V		
Resin	White diffused	Epoxy resin	
Carrier tape		Conductive black tape	4000pcs per reel
Reel		White	
Label	LT standard	Paper	
Packing bag	250 ×220mm	Aluminum laminated bag	One reel one bag
Carton	LT standard	Paper	Non-specified
Others:			



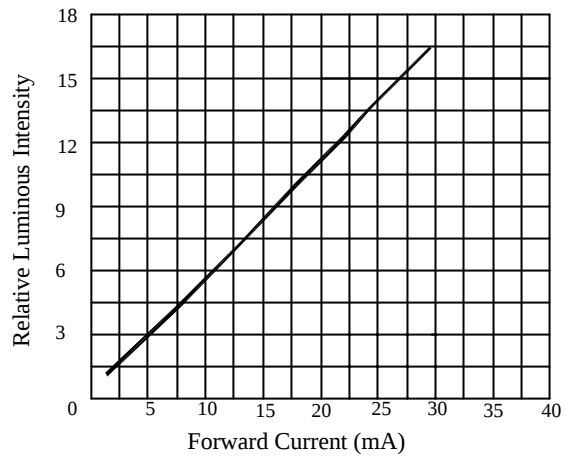
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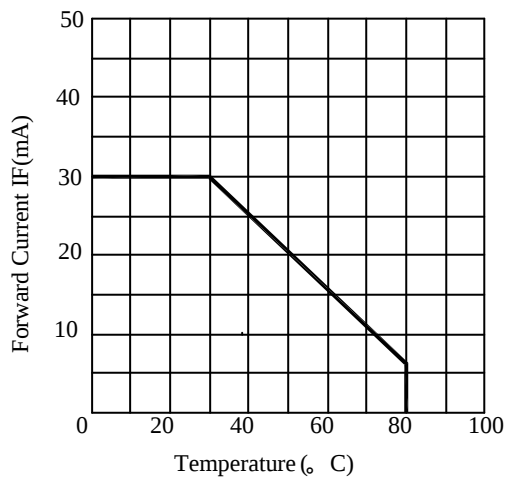
Typical Electrical/Optical Characteristic Curves (25 Ambient Temperature Unless Otherwise Noted)



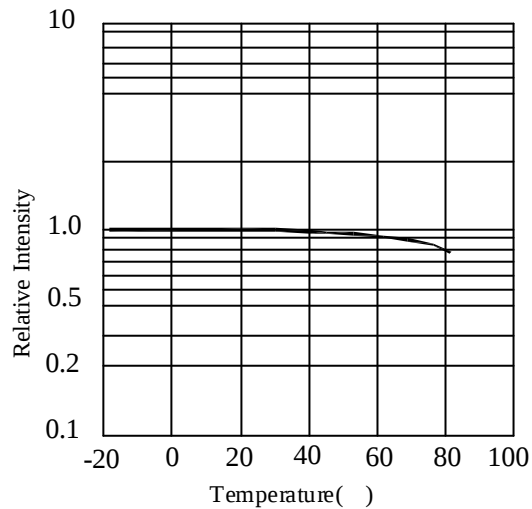
FORWARD CURRENT VS. APPLIED VOLTAGE



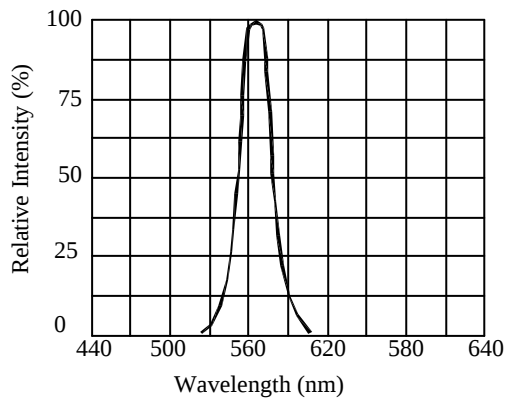
RELATIVE INTENSITY VS. FORWARD CURRENT



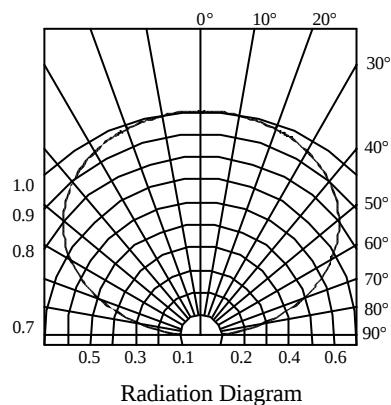
FORWARD CURRENT VS. AMBIENT TEMPERATURE



RELATIVE INTENSITY VS. AMBIENT TEMPERATURE



RELATIVE INTENSITY VS. WAVELENGTH

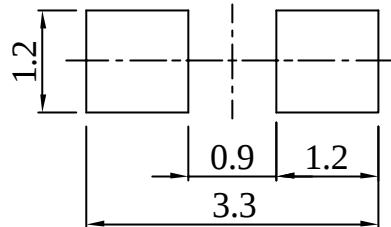




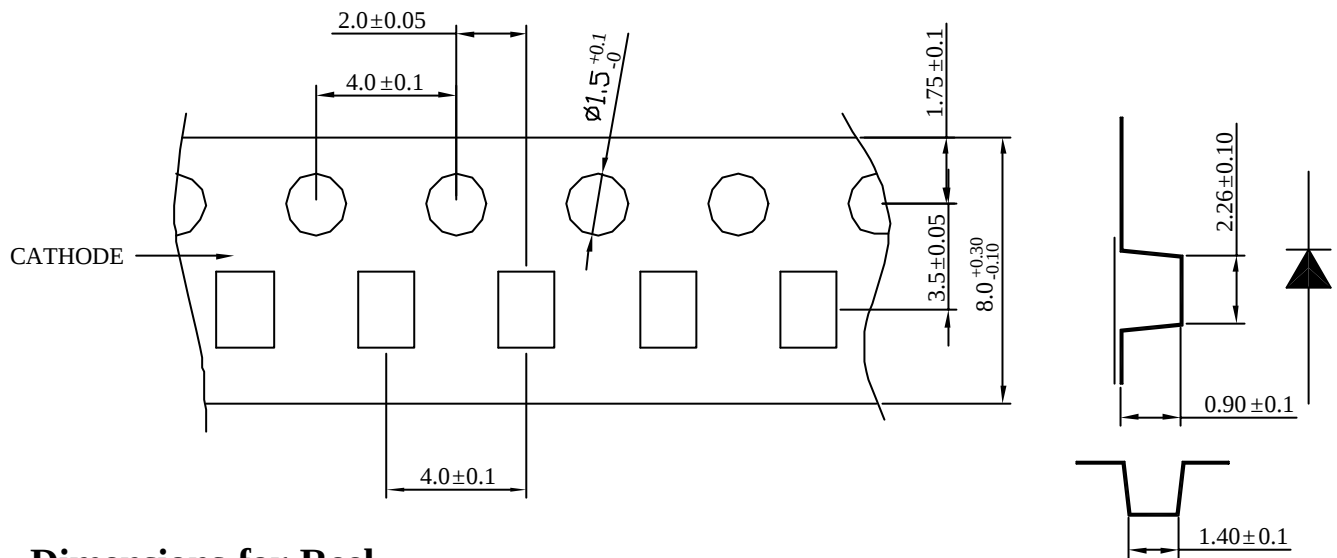
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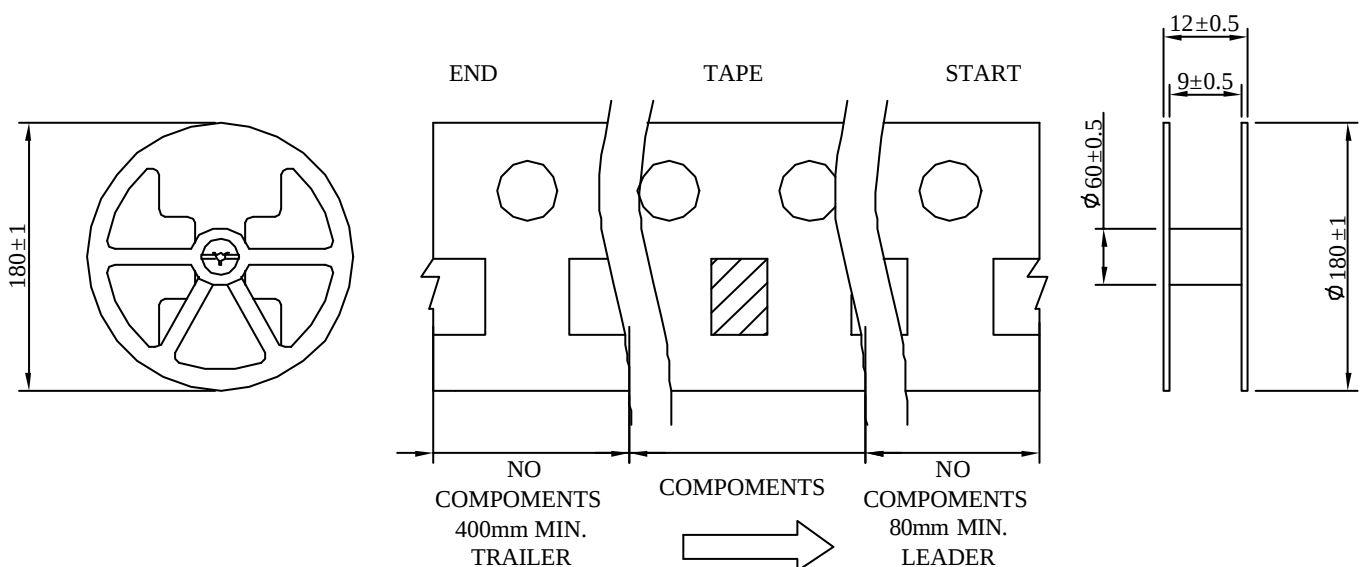
Reflow Soldering Pad Dimensions



Dimensions for Tape



Dimensions for Reel



Notes:

- 1.All Dimensions are in mm, tolerance is $\pm 2.0\text{mm}$ unless otherwise noted
- 2.Specifications are subject to change without notice



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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.

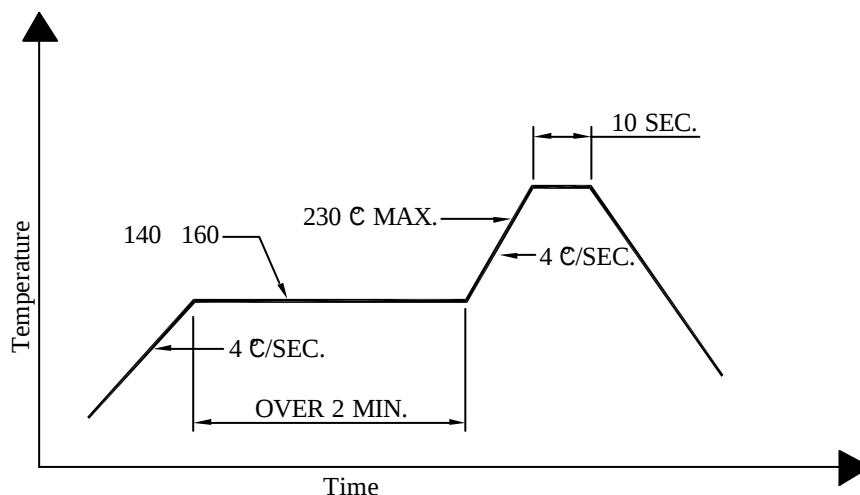
Recommend ultrasonic method 300W Max.

Packaging

EIA-481A standard package.

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

Reflow Temp/Time :



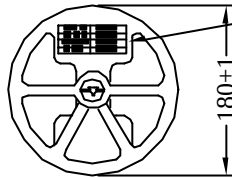


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Dimensions for Tape

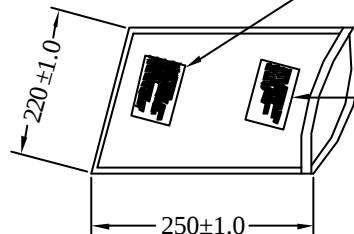
Reel : 4,000PCS



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

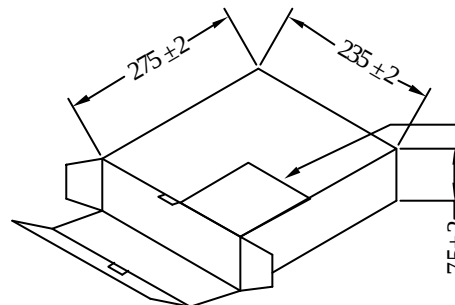
溼氣敏感材料
MOISTURE SENSITIVE DEVICES
1. 在5 °C~30 °C密封貯藏，2年有效。
Shelf life in sealed bag : 24 months
at 5 °C~30 °C.
2. 開封後需在72小時內使用。
Devices have to be mounted within
72 hours after this bag is opened .

Bag : 4,000PCS



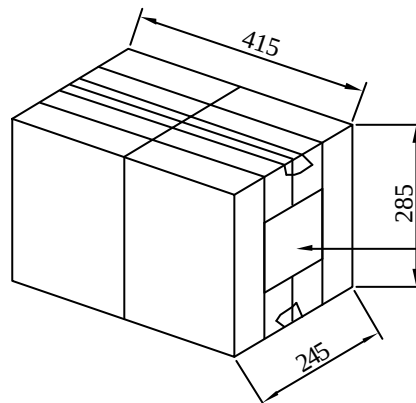
PART NO	XXXXXX
LOT NO	XXXXXX
QUANTITY	XXXXXX
DATE	XXXXXX
BIN CODE	XXXXXX

5 Bags : 20,000PCS



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

5 Boxes : 100,000PCS



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

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.) Tamb 25 °C ; If=20mA ; duration 1000hrs
High humidity,high temperature bias	1Q/ 1 / 45 / 0	JESD-A101-B	Tamb85 °C Humidity : 85% R.H., If=20mA Duration : 1000hrs
High temperature bias	1Q/ 1 / 20	HT specs.	Tamb55 °C If=20mA Duration : 1000hrs
Pulse life test	1Q/ 1 / 40 / 0		Tamb25 °C, If=20mA, IP=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