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SPECIFICATION

PART NO. : LT8B22-150T

1206 SMD LED TYPE

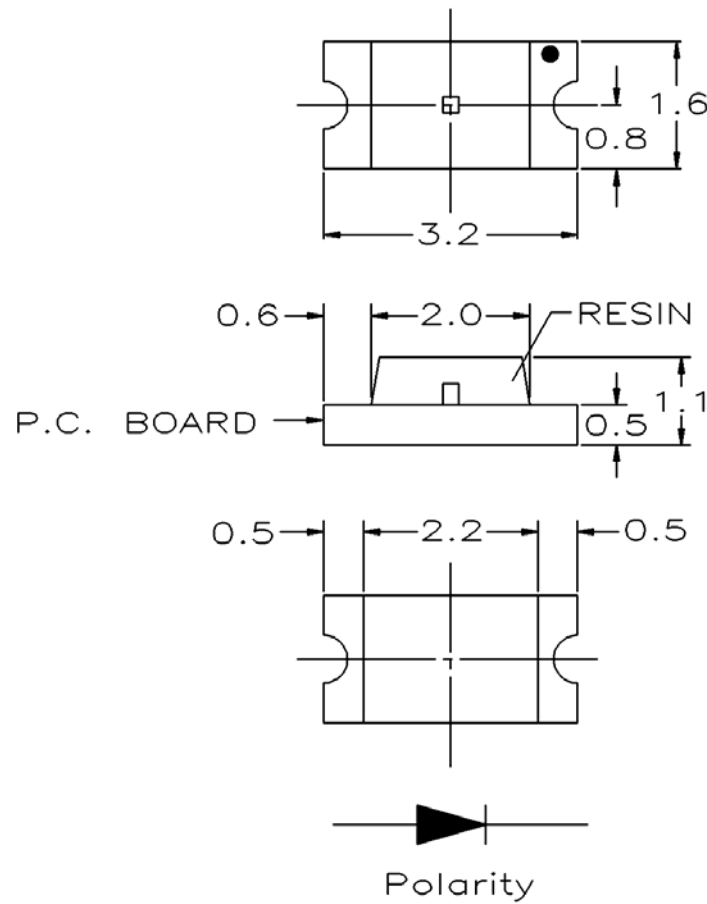


Approved by	Checked by	Prepared by
<i>FONG PO WANG</i>	<i>HSIN CHIN</i>	<i>Chien Kun</i>

1206 SMD LED TYPE

[illegible]

Package Dimensions



Notes:

1. All dimensions are in mm.
2. Tolerance is ± 0.25 mm unless otherwise noted.

Description

Part No.	LED Chip		Lens Color
	Material	Emitting Color	
LT8B22-150T	GaP	Greenish Yellow	White Diffused

Absolute Maximum Ratings at Ta=25

Parameter	Symbol	Rating	Unit
Power Dissipation	P _D	78	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)	100	mA
Operating Temperature Range	T _{opr.}	-30 to +80	
Storage Temperature Range	T _{stg.}	-40 to +85	
Soldering Temperature.	T _{sld.}	Reflow Soldering: 260 for 10 sec.	

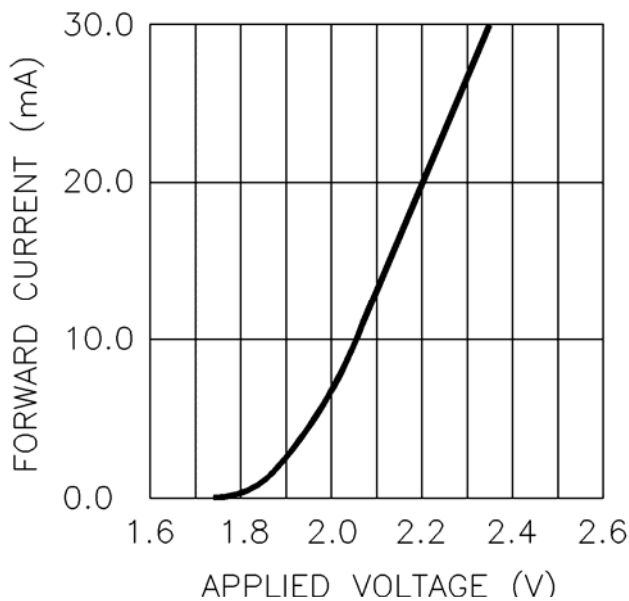
Electrical and Optical Characteristics:

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Intensity	I _v	I _f =20mA		10		mcd
Forward Voltage	V _f	I _f =20mA		2.2	2.6	V
Peak Wavelength	λ _p	I _f =20mA		570		nm
Dominant Wavelength	λ _d	I _f =20mA		572		nm
Reverse Current	I _r	V _r =5V			100	μA
Viewing Angle	2 θ 1/2	I _f =20mA		130		deg
Spectrum Line Halfwidth	Δ λ	I _f =20mA		30		nm

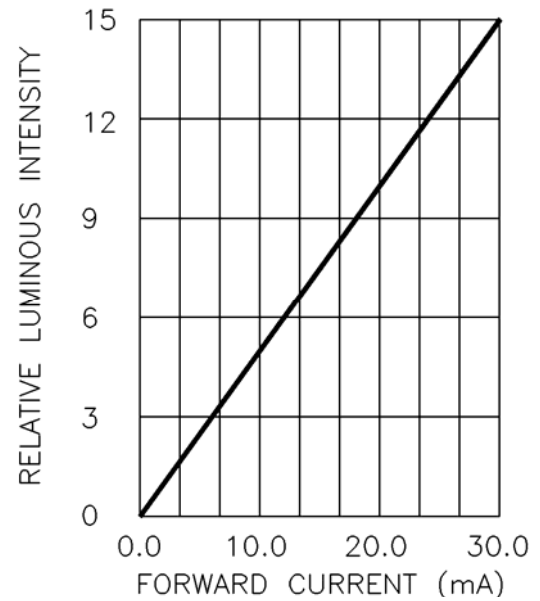
Notes: 1.The datas tested by IS tester.

2. Customer's special requirements are also welcome.

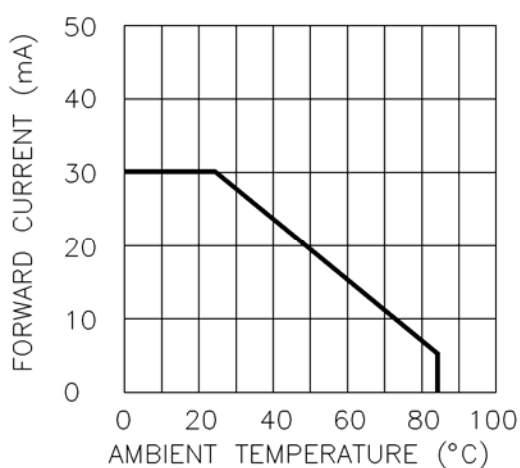
Typical Electrical/Optical Characteristic Curves (25 Ambient Temperature Unless Otherwise Noted)



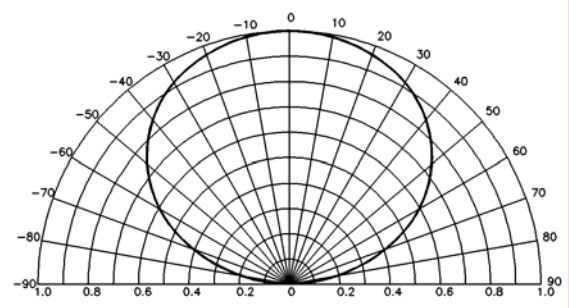
Forward Current VS. Applied Voltage



Forward Current VS. Luminous Intensity



Ambient Temperature VS. Forward Current



Radiation Diagram

RECAUTION IN USE

Storage

Recommended 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.

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

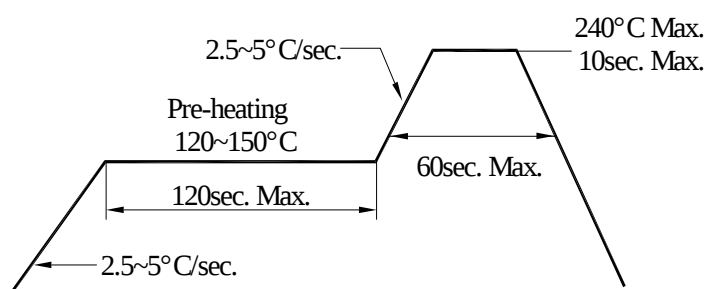
Reflow Soldering		
	Lead Solder	Lead – free Solder
Pre-heat	120~150	180~200
Pre-heat time	120sec. Max.	120sec. Max.
Peak temperature	240 Max.	260 Max.
Soldering time	10sec. Max.	10sec. Max.
Condition	refer to Temperature- profile 1	refer to Temperature- profile 2

*After reflow soldering rapid cooling should be avoided.

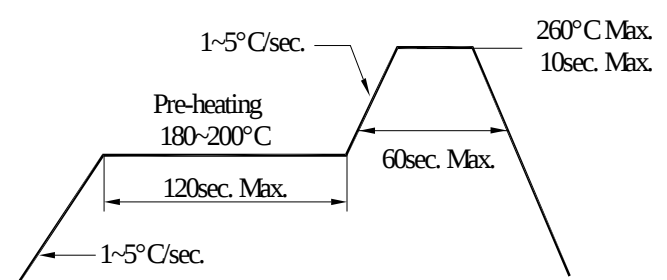
[Temperature-profile (Surface of circuit board)]

Use the conditions shown to the under figure.

< 1 : Lead Solder >

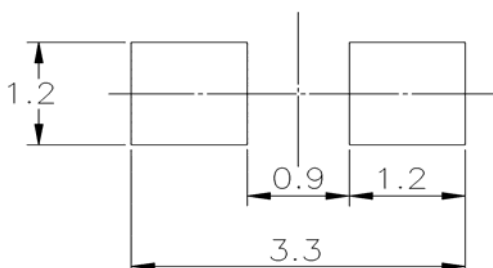


< 2 : Lead-free Solder >

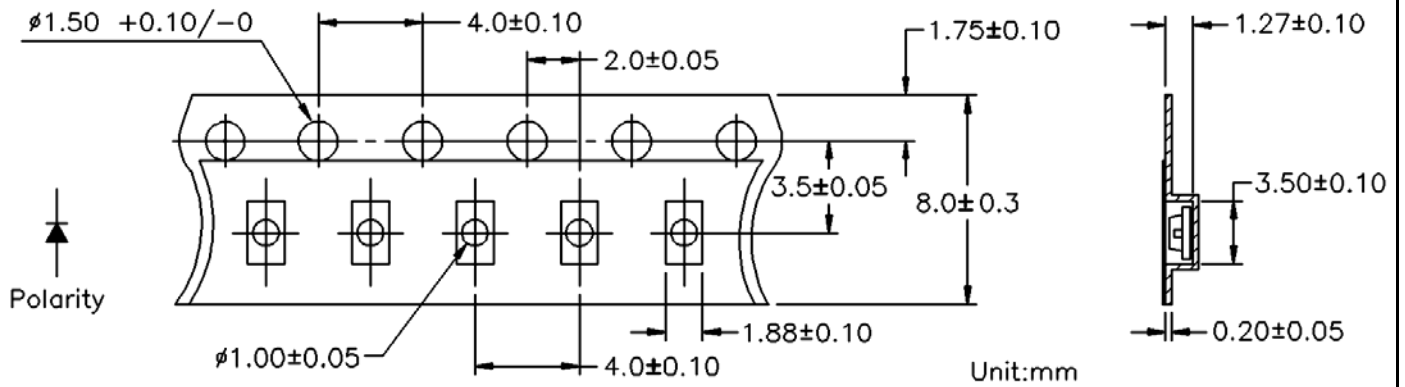


[Recommended soldering pad design]

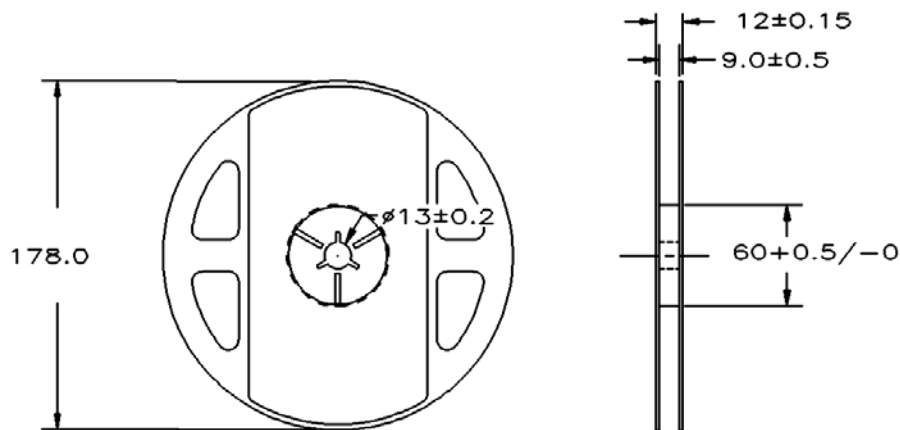
Use the following conditions shown in the figure.



Dimensions for Tape



Dimensions for Reel



Notes:

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

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 for 24hrs 2.)Moisture storage at 85 /60% R.H. for 168hrs
Solderability	1Q/ 1/ 22/ 0	JESD22-B102-B And CNS-5068	Accelerated aging 155 /24hrs Tinning speed:2.5±0.5cm/s Tinning:A:215 /3±1s or B:260 /10±1s
Resistance to soldering heat		CNS-5067	Dipping soldering terminal only Soldering bath temperature A: 260+/-5 ;10+/-1s B: 350+/-10 ;3+/-0.5s
Operating life test	1Q/ 1/ 40/ 0	CNS-11829	1.)Precondition:85 baking for 24hrs 85 /60% R.H. for 168hrs 2.)T _{amb} =25 ;I _F =20mA;duration
High humidity,high temperature bias	1Q/ 1/ 45/ 0	JESD-A101-B	T _{amb} 85 Humidity:85% R.H., I _F =5mA Duration:1000hrs
High temperature bias	1Q/ 1/ 20	HT specs.	T _{amb} 55 I _F =20mA Duration:1000hrs
Pulse life test	1Q/ 1/ 40/ 0		T _{amb} 25 ,I _F =20mA,,I _p =100mA,Duty cycle=0.125 (tp=125 μ s,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 15min 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 90+5/-10% R.H. for 500hrs
High temperature storage test	1Q/ 1/ 40/ 0	CNS-554	100±10 for 500hrs
Low temperature storage test	1Q/ 1/ 40/ 0	CNS-6118	-40±5 for 500hrs