

### Features

- \* Brightest 0603 in Industry
- \* For automatic placement equipments
- \* For infrared and vapor phase reflow solder processes
- \* Long life solid state reliability
- \* IC compatible
- \* JEDEC Precondition Stress Tested

### Absolute Maximum Ratings at T<sub>A</sub>= 25°C

REVERSE VOLTAGE (<100 μ A).....	AlGaInP 4.0 V
D.C. FORWARD CURRENT .....	30 mA
PULSE CURRENT (1/10 DUTY CYCLE,0.1 ms PULSE WIDTH).....	100 mA
OPERATING TEMPERATURE RANGE.....	-30°C TO +85°C
STORAGE TEMPERATURE RANGE.....	-30°C TO +100°C
SOLDERING TEMP (see page 2 for details).....	260°C FOR 5 SEC.

### Applications

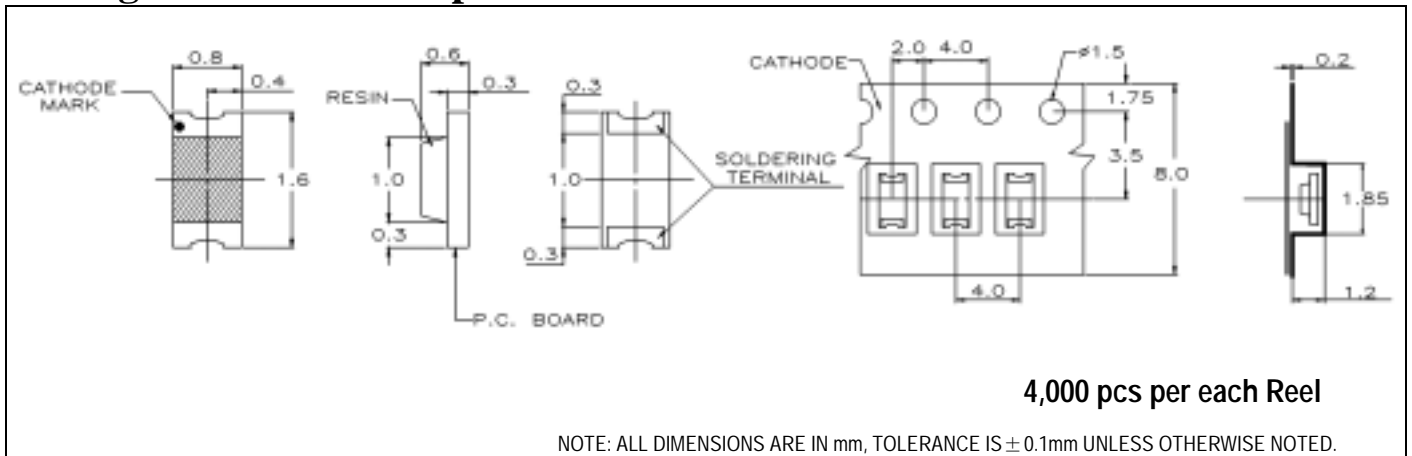
- \* LCD backlighting
- \* Strip lighting
- \* Push-button / Keypad backlighting
- \* Automobile front panel indicating and backlighting
- \* Symbol backlighting
- \* Miniature Dot Matrix displays

### Electrical/optical characteristics at T<sub>A</sub>= 25°C

PART NUMBER	LED CHIP		LENS COLOR	PEAK WAVELENGTH @20 mA (nm)	FORWARD VOLTAGE @20mA(V)		LUMINOUS INTENSITY @20mA(mcd)		VIEW ANGLE 2θ <sup>1/2</sup> (deg)
	MATERIAL	EMITTING COLOR			TYP.	MAX.	MIN.	TYP.	
					LT8B22-UR-191T	AlGaInP	UR GREEN	W.D.	
LT8B32-UR-191T	AlGaInP	UR YELLOW	W.D.	593	2.1	2.8	25.0	45.0	170
LT8BA2-UR-191T	AlGaInP	UR AMBER	W.D.	611	2.1	2.8	25.0	45.0	170
LT8B42-UR-191T	AlGaInP	UR ORANGE	W.D.	632	2.1	2.8	25.0	45.0	170
LT8B12-UR-191T	AlGaInP	UR RED	W.D.	640	2.1	2.8	20.0	35.0	170
LT8B22-URA-191T	AlGaInP	URA GREEN	W.D.	570	2.2	2.6	25.0	45.0	170
LT8B32-URB-191T-M00	AlGaInP	URB LIGHT YELLOW	W.D.	585	2.0	2.6	40.0	70.0	170
LT8B32-URB-191T	AlGaInP	URB YELLOW	W.D.	593	2.0	2.6	40.0	70.0	170
LT8BA2-URB-191T	AlGaInP	URB AMBER	W.D.	611	2.0	2.6	40.0	75.0	170
LT8B42-URB-191T	AlGaInP	URB ORANGE	W.D.	632	2.0	2.6	40.0	70.0	170
LT8B12-URB-191T	AlGaInP	URB RED	W.D.	640	2.0	2.6	35.0	55.0	170

W.D....WHITE DIFFUSED

### Package Outline And Tape Dimension



## GENERAL PRECAUTIONS

- Products described in this product specification sheet are intended for standard applications of general electronic equipment such as office equipment, communication equipment, electronic instruments, and electric home appliances.
- When used for transport equipment, disaster prevention and crime prevention equipment as well as other safety devices calling for high reliability and safety, please be advised to pay particular heed to safety design of the equipment in its entirety in terms of fail-safe and redundancy design to maintain the reliability and safety required by such equipment.
- This specification is subject change without notice. The contents of this specification are as of **Oct 17, 2001**.

## PRECAUTIONS IN USE

### Storage

- Recommended storage environment
  - Temperature: 5°C ~ 30°C (40°F ~ 85°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

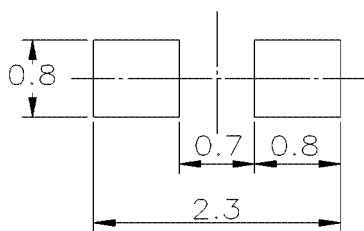
Surface condition of this device may change when organic solvents such as trichloroethylene or acetone were applied.

- Avoid using organic solvent
- Recommend ultrasonic method 300W Max.

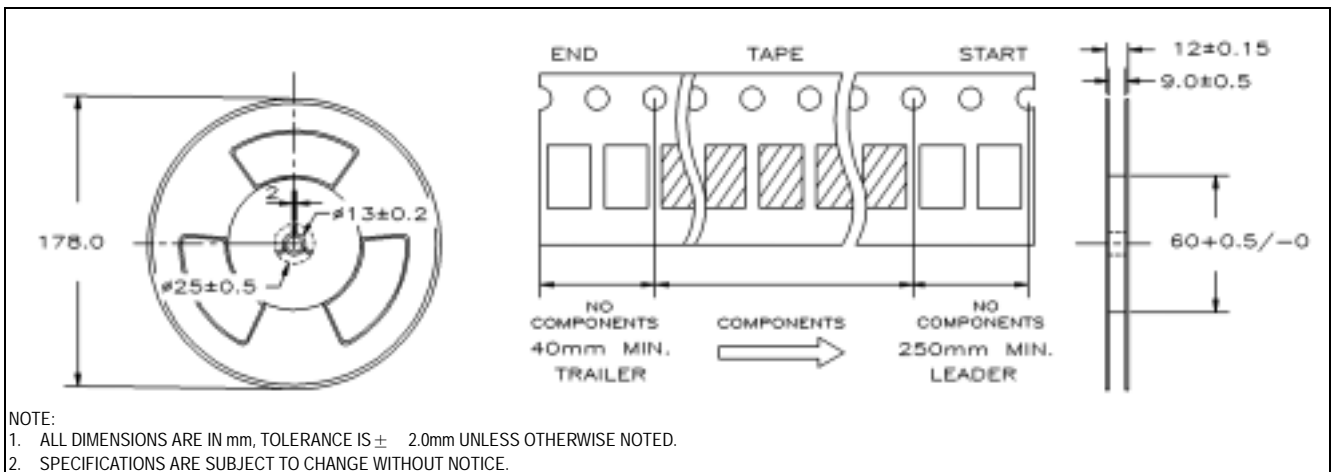
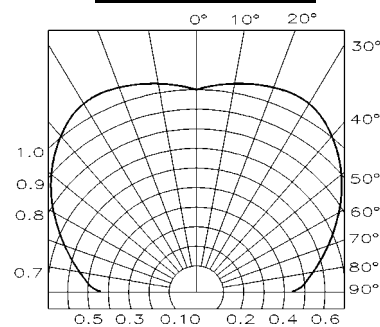
### Packaging

- EIA-481A standard package
- In 8mm tape on 7"/178mm (4,000 pcs) diameter reels sealed in vapor/ESD barrier bags.

### Reflow Soldering Pad Dimensions



### Radiation Pattern



- NOTE:
1. ALL DIMENSIONS ARE IN mm, TOLERANCE IS  $\pm 2.0$ mm UNLESS OTHERWISE NOTED.
  2. SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.