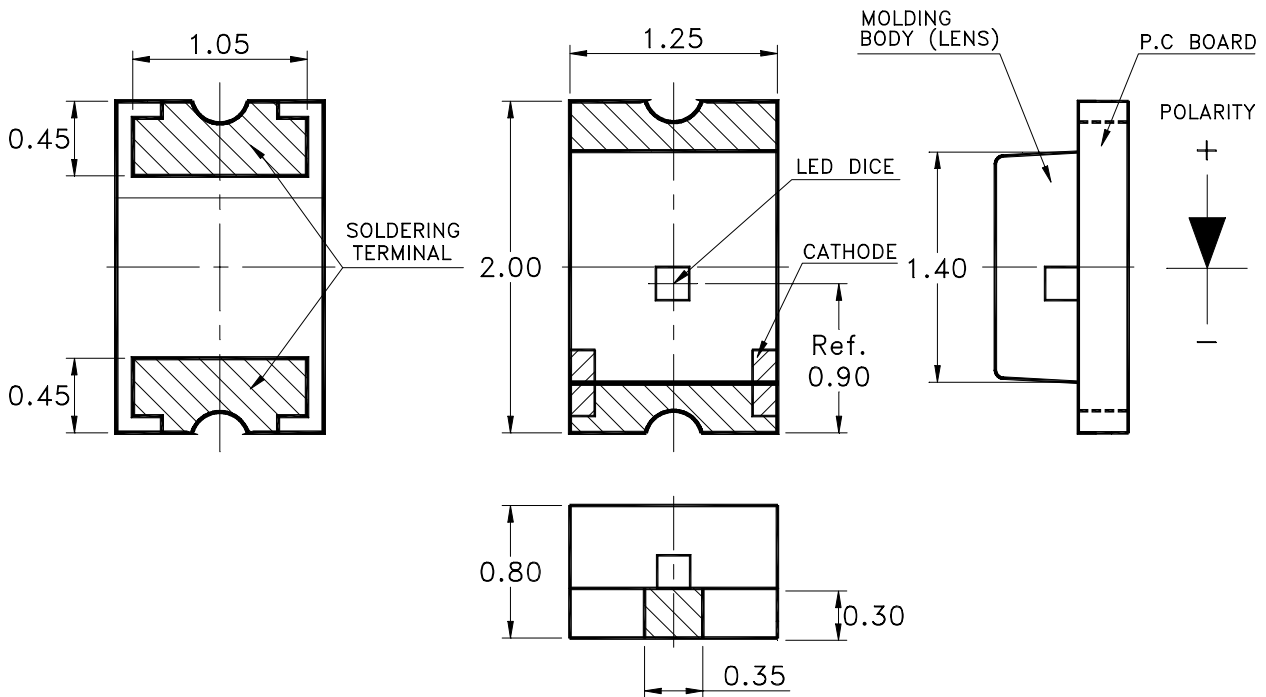


Property of Lite-On Only

### Features

- \* Super thin (0.80H mm) Chip LED.
- \* Package in 8mm tape on 7" diameter reels.
- \* Compatible with automatic placement equipment.
- \* Compatible with infrared and vapor phase reflow solder process.
- \* EIA STD package.
- \* I.C. compatible.

### Package Dimensions



Part No.	Lens	Source Color
LTST-C171UBKT	Water Clear	GaN on SiC Blue

### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1\text{mm}$  (.004") unless otherwise noted.

## Property of Lite-On Only

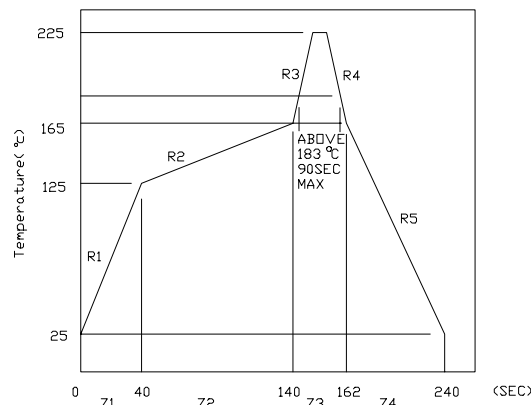
### Absolute Maximum Ratings At Ta=25°C

Parameter	LTST-C171UBKT	Unit
Power Dissipation	135	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	70	mA
Continuous Forward Current	30	mA
Derating Linear From 30° C	0.5	mA/°C
Reverse Voltage	5	V
Electrostatic Discharge Threshold(HBM) <sup>Note A</sup>	1000	V
Operating Temperature Range	-20°C to + 80°C	
Storage Temperature Range	-30°C to + 100°C	
Wave Soldering Condition	260°C For 5 Seconds	
Infrared Soldering Condition	260°C For 5 Seconds	
Vapor Phase Soldering Condition	215°C For 3 Minutes	

Note A :

HBM : Human Body Model. Seller gives no other assurances regarding the ability of Products to withstand ESD.

Suggest IR Reflow Condition :



Property of Lite-On Only

Electrical Optical Characteristics At Ta=25°C

Parameter	Symbol	Part no. LTST-	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	IV	C171UBKT	1.8	4.5		mcd	IF = 20mA Note 1, 5
Viewing Angle	$2\theta 1/2$	C171UBKT		130		deg	Note 2 (Fig.6)
Peak Emission Wavelength	$\lambda P$	C171UBKT		428		nm	Measurement @Peak (Fig.1)
Dominant Wavelength	$\lambda d$	C171UBKT		466		nm	Note 3
Spectral Line Half-Width	$\Delta \lambda$	C171UBKT		65		nm	
Forward Voltage	VF	C171UBKT		3.8	4.5	V	IF = 20mA
Reverse Current	IR	C171UBKT			100	$\mu A$	VR = 5V

Notes: 1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.

2.  $\theta 1/2$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

3. The dominant wavelength,  $\lambda d$  is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

4. Caution in ESD:

Static Electricity and surge damages the LED. It is recommend to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.

Property of Lite-On Only

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

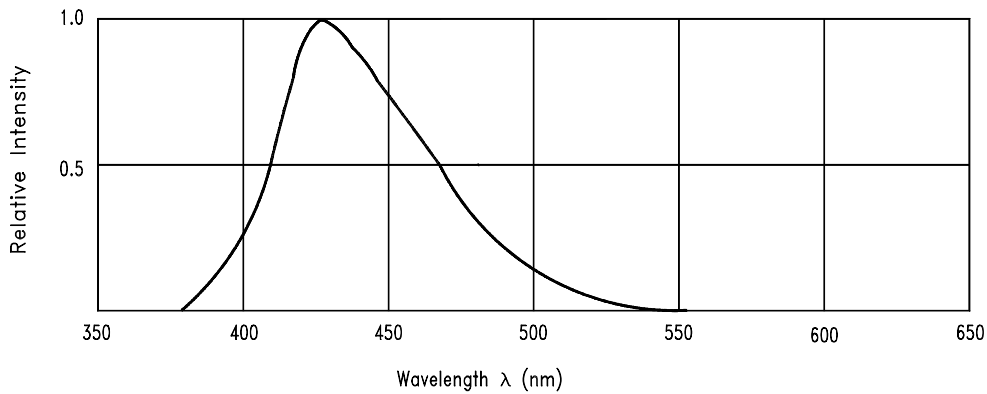


Fig.1 Relative Intensity vs. Wavelength

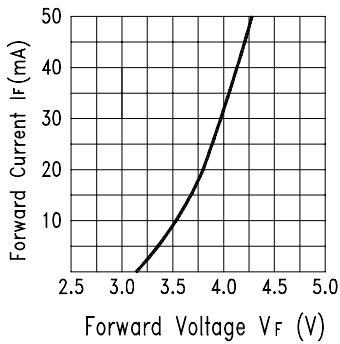


Fig.2 Forward Current vs. Forward Voltage

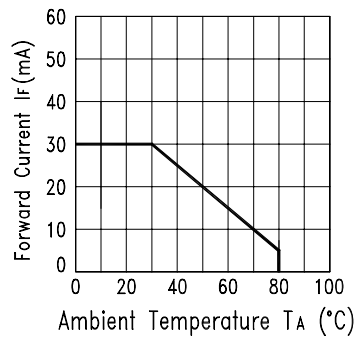


Fig.3 Forward Current Derating Curve

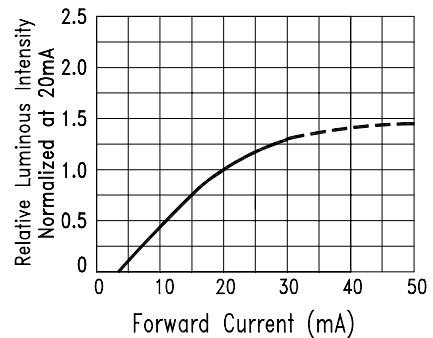


Fig.4 Relative Luminous Intensity vs. Forward Current

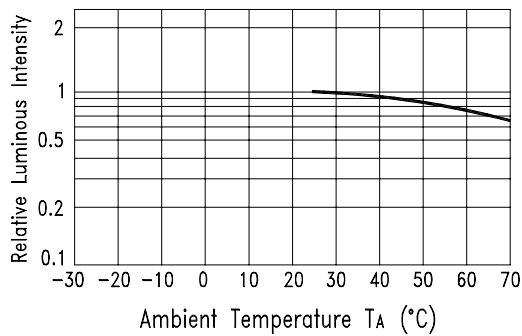


Fig.5 Luminous Intensity vs. Ambient Temperature

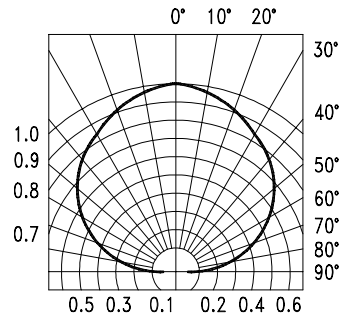


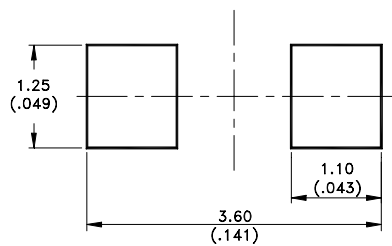
Fig.6 Spatial Distribution

Property of Lite-On Only

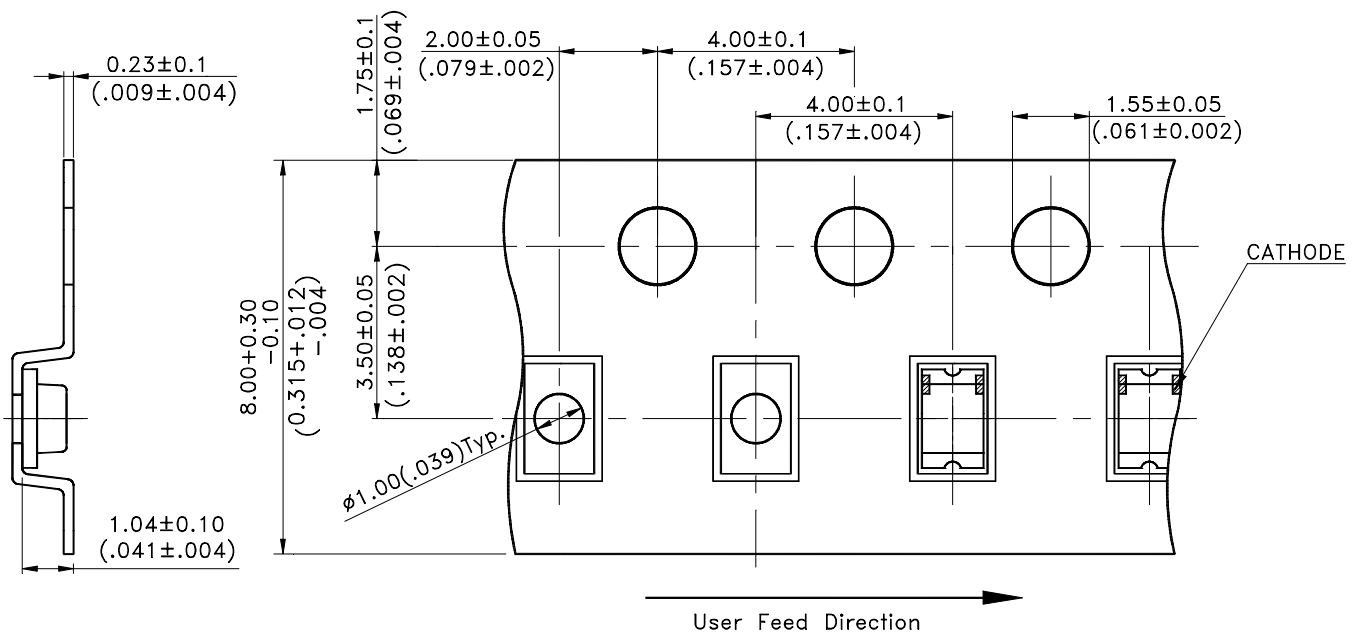
### Cleaning

Do not use unspecified chemical liquid to clean LED they could harm the package.  
 If clean is necessary, immerse the LED in ethyl alcohol or in isopropyl alcohol at normal temperature for less one minute.

### Suggest Soldering Pad Dimensions



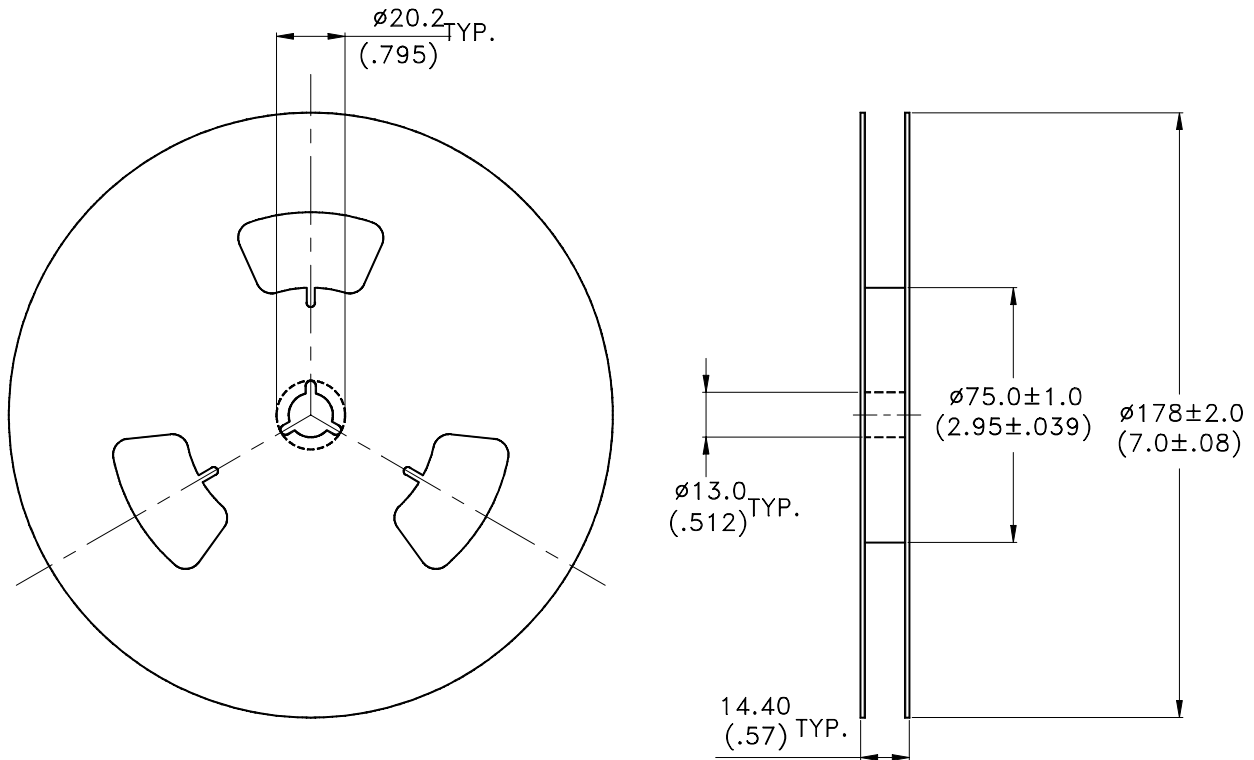
### Package Dimensions Of Tape And Reel



### Notes:

1. All dimensions are in millimeters (inches).

Property of Lite-On Only



Notes:

1. Empty component pockets sealed with top cover tape.
2. 7 inch reel-3000 pieces per reel.
3. The maximum number of consecutive missing lamps is two.
4. In accordance with ANSI/EIA RS-481 specifications.