# LITEON

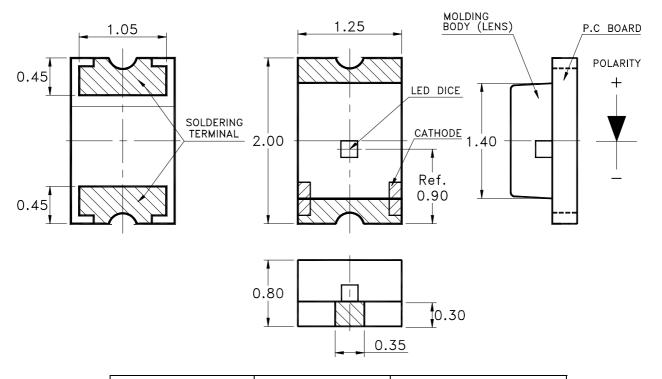
### LITE-ON ELECTRONICS, INC.

### 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-C171YKT	Water Clear	GaAsP on GaP Yellow		

#### Notes:

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

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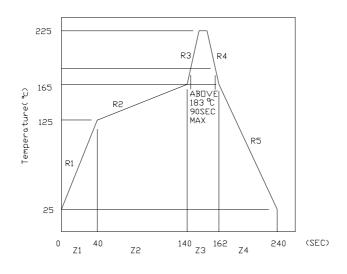


### Property of Lite-On Only

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

Parameter	LTST-C171YKT	Unit			
Power Dissipation	60	mW			
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA			
Continuous Forward Current	20	mA			
Derating Linear From 50℃	0.4	mA/°C			
Reverse Voltage	5	V			
Operating Temperature Range	-55°C to + 85°C				
Storage Temperature Range	-55°C to +85°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				

### Suggest IR Reflow Condition:



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### Property of Lite-On Only

### Electrical Optical Characteristics At Ta=25°C

Parameter	Symbol	Part No. LTST-	Min.	Тур.	Max.	Unit	Test Condition
Luminous Intensity	IV	C171YKT	1.8	4.5		mcd	IF = 20mA Note 1
Viewing Angle	2 θ 1/2	C171YKT		130		deg	Note 2 (Fig.6)
Peak Emission Wavelength	λ Peak	C171YKT		585		nm	Measurement @Peak (Fig.1)
Dominant Wavelength	λd	C171YKT		588		nm	Note 3
Spectral Line Half-Width	Δλ	C171YKT		35		nm	
Forward Voltage	VF	C171YKT		2.1	2.6	V	IF = 20mA
Reverse Current	IR	C171YKT			100	$\mu$ A	VR = 5V
Capacitance	С	C171YKT		30		PF	VF = 0 f = 1MHZ

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.

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### Property of Lite-On Only

### Typical Electrical / Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

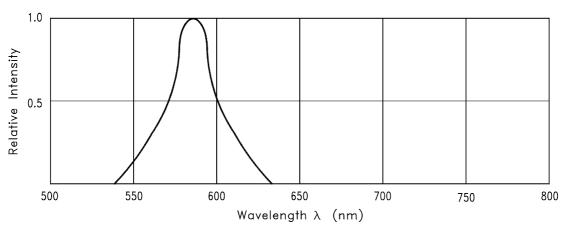


Fig.1 RELATIVE INTENSITY VS. WAVELENGTH

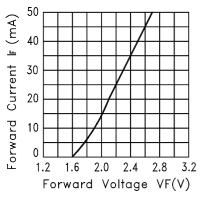


Fig.2 FORWARD CURRENT VS. FORWARD VOLTAGE

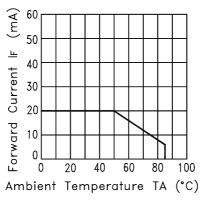


Fig.3 FORWARD CURRENT DERATING CURVE

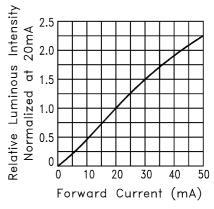


Fig.4 RELATIVE LUMINOUS
INTENSITY VS. FORWARD
CURRENT

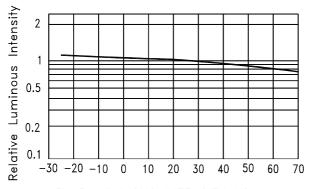


Fig.5 LUMINOUS INTENSITY VS.
AMBIENT TEMPERATURE

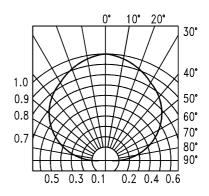


Fig. 6 SPATIAL DISTRIBUTION

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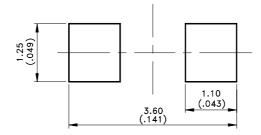
### Property of Lite-On Only

### Cleaning

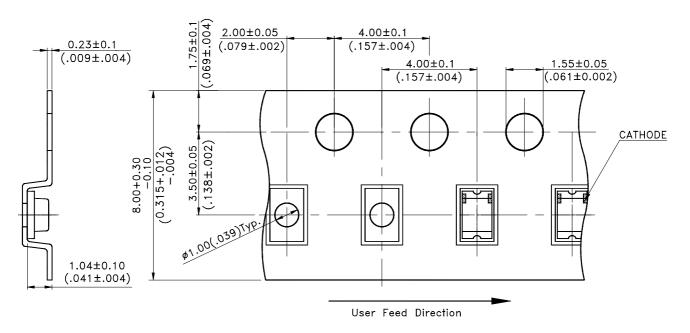
Do not use unspecified chemical liquid to clean LED they could harm the package.

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**

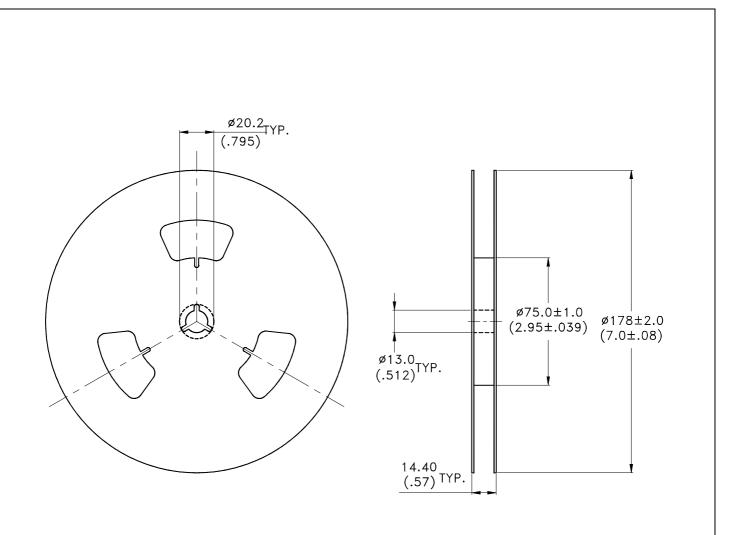


Notes: 1. All dimensions are in millimeters (inches).

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### 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 481-1-A-1994 specifications.

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