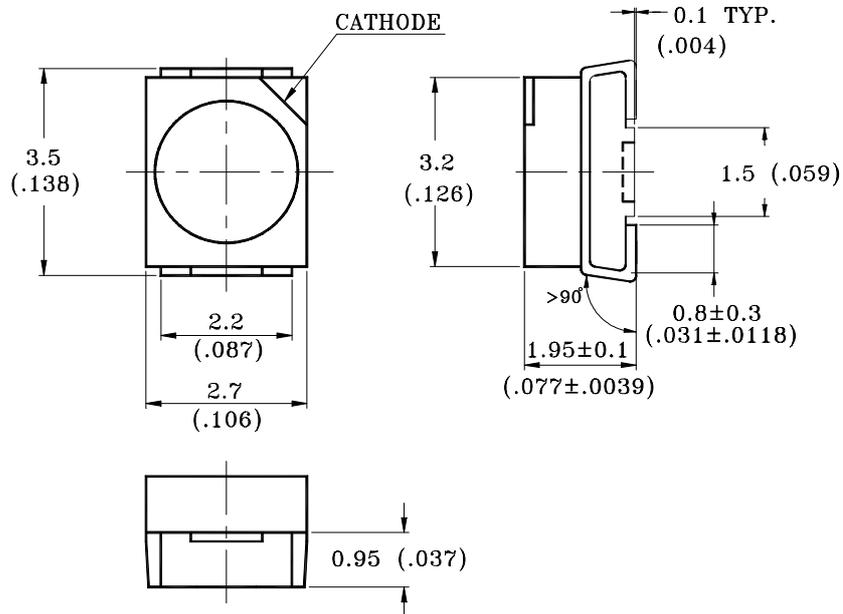


## Property of LITE-ON Only

### Features

- \* 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 Color	Source Color
LTST-T670EKT	Water Clear	Red

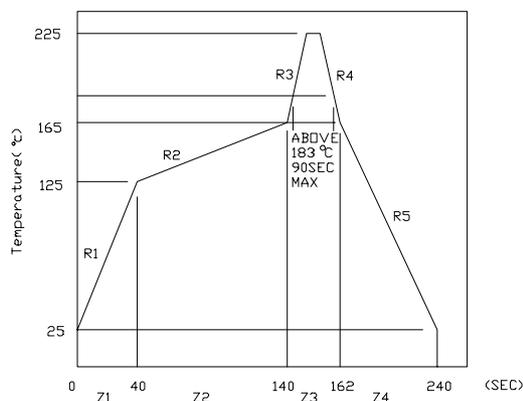
#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.2$  mm (.008") unless otherwise noted.

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

Parameter	LTST-T670EKT	Unit
Power Dissipation	100	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	120	mA
Continuous Forward Current	30	mA
Derating Linear From 50°C	0.6	mA/°C
Reverse Voltage	5	V
Operating Temperature Range	-55°C to + 100°C	
Storage Temperature Range	-55°C to + 100°C	
Infrared Soldering Condition	265°C For 5 Seconds	
Vapor Phase Soldering Condition	215°C For 3 Minutes	
Wave Soldering Temperature	260°C For 5 Seconds	

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	T670EKT	5.6	12.4		mcd	IF = 10mA Note 1,4
Viewing Angle	$2\theta_{1/2}$	T670EKT		120		deg	Note 2 (Fig.6)
Peak Emission Wavelength	$\lambda_P$	T670EKT		635		nm	Measurement @Peak (Fig.1)
Dominant Wavelength	$\lambda_d$	T670EKT		621		nm	Note 3
Spectral Line Half-Width	$\Delta\lambda$	T670EKT		40		nm	
Forward Voltage	VF	T670EKT		2.0	2.8	V	IF = 20mA
Reverse Current	IR	T670EKT			100	$\mu A$	VR = 5V
Capacitance	C	T670EKT		20		PF	VF = 0, f=1MHZ

Note: 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. The max. & min. are not including testing tolerance 15%.

## Property of LITE-ON Only

### Typical Electrical / Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

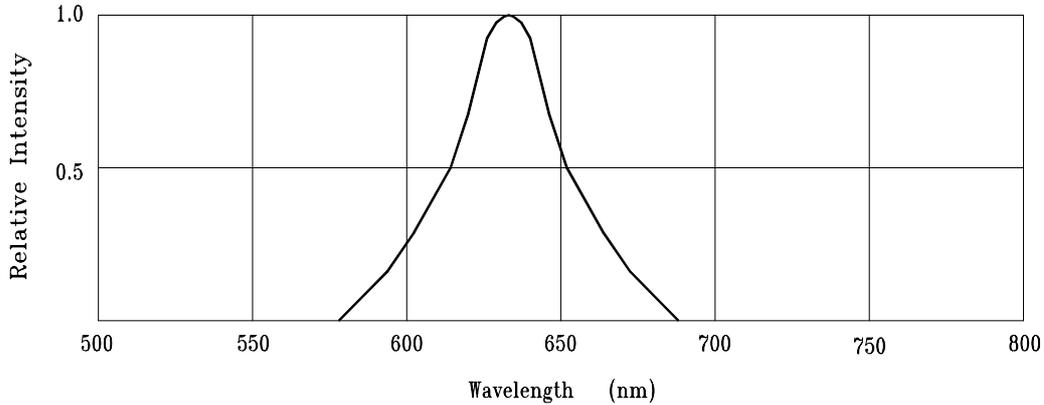


Fig.1 RELATIVE INTENSITY VS. WAVELENGTH

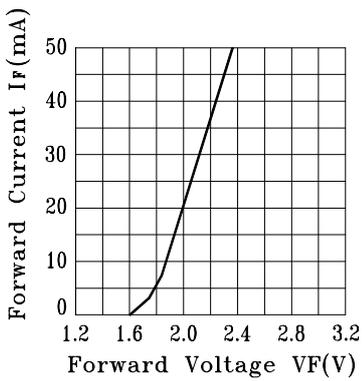


Fig.2 FORWARD CURRENT VS. FORWARD VOLTAGE

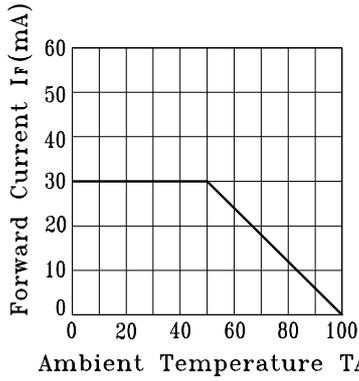


Fig.3 FORWARD CURRENT DERATING CURVE

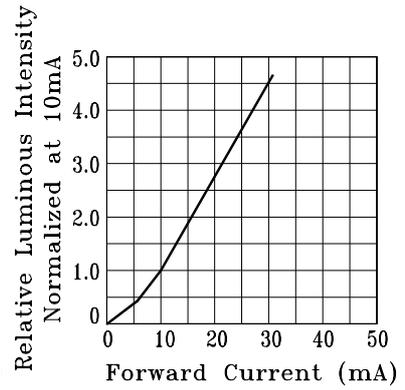


Fig.4 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

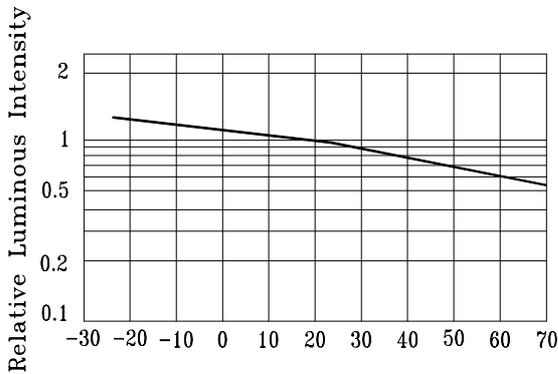


Fig.5 LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE.

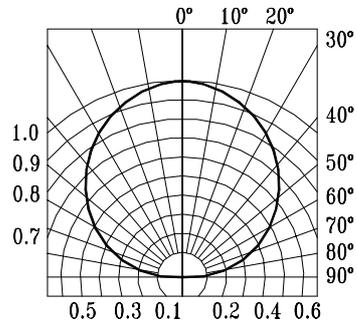


Fig.6 SPATIAL DISTRIBUTION

Property of LITE-ON Only

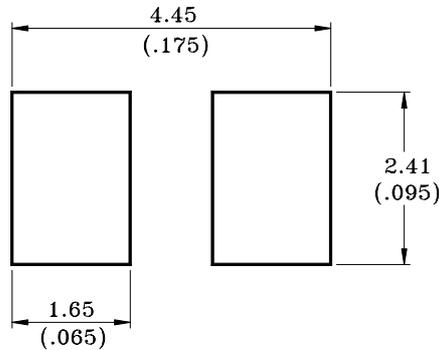
## User Guide

### Cleaning

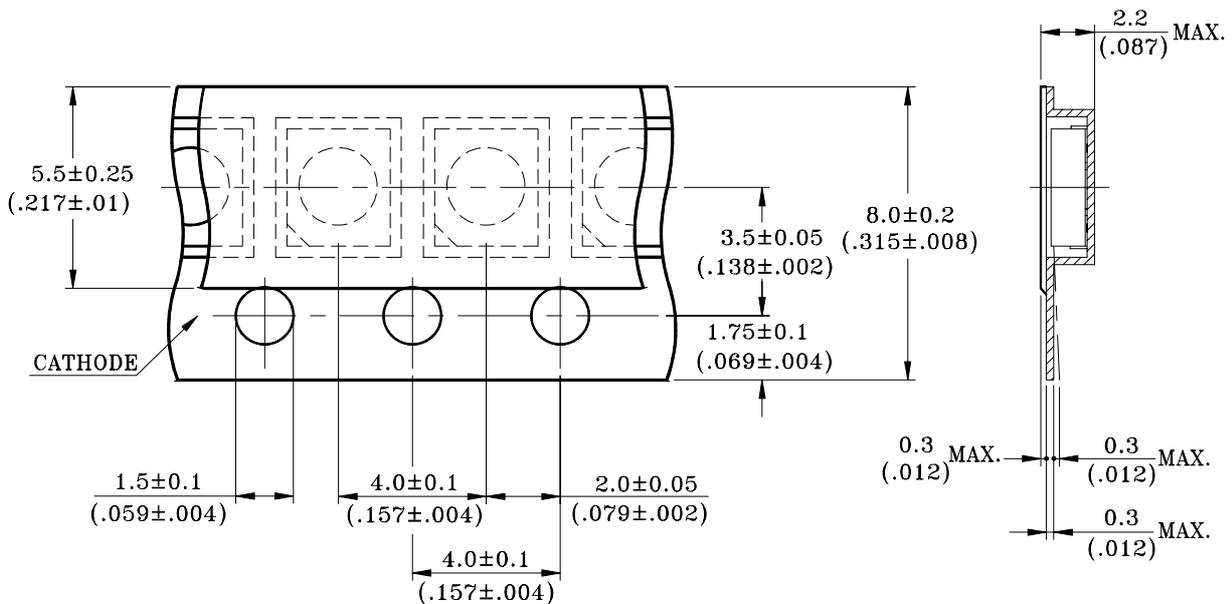
Do not use unspecified chemical liquid to clean LED they could harm the package.  
If cleaning is necessary, immerse the LED in ethyl alcohol or isopropyl alcohol at normal temperature for less one minute.

### Recommend Printed Circuit Board Attachment Pad

Infrared / vapor phase  
Reflow Soldering



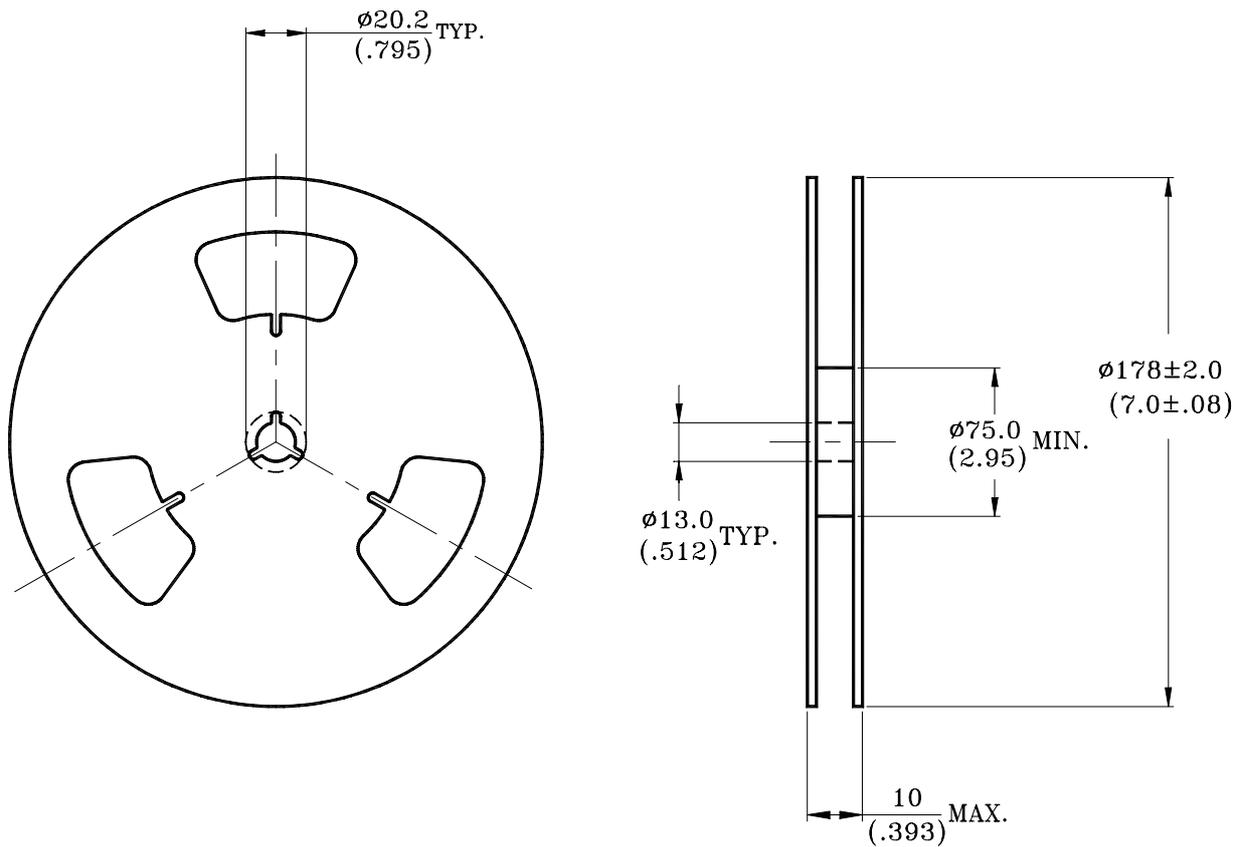
### Package Dimensions of Tape



Note:

1. All dimensions are in millimeters (inches).

Property of LITE-ON Only

**Package Dimensions of Reel**

## Notes:

1. Empty component pockets sealed with top cover tape.
2. 7 inch reel-2000 pieces per reel.
3. The maximum number of consecutive missing lamps is two.
4. In accordance with ANSI/EIA RS-481 specifications.