



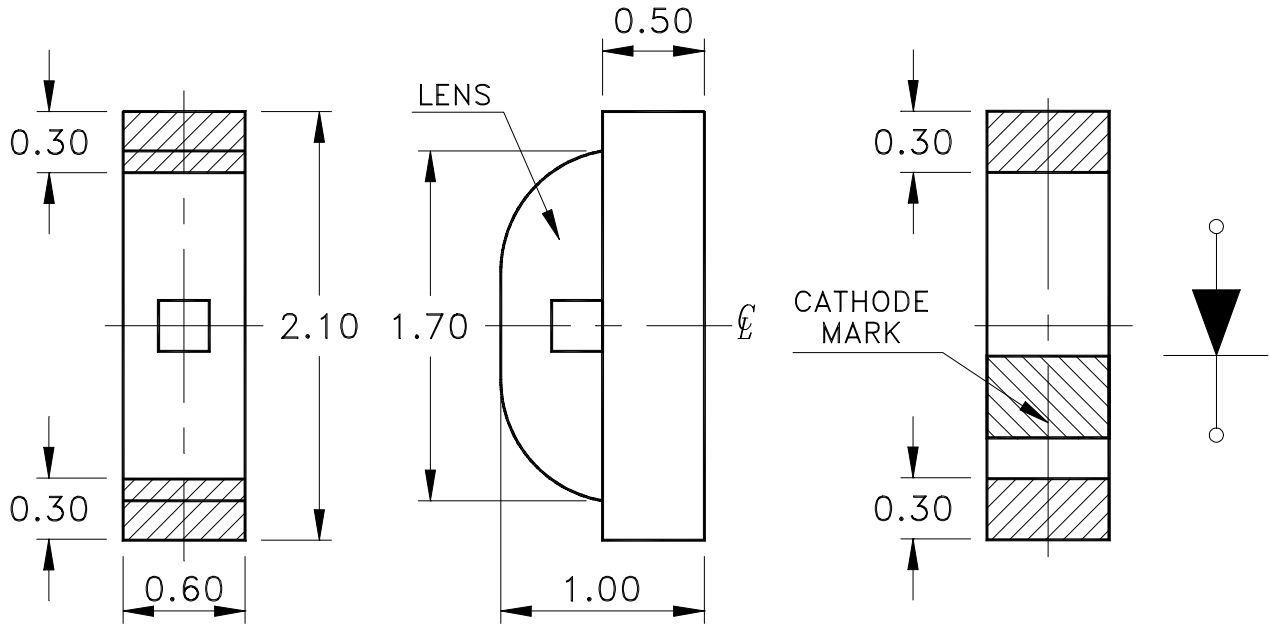
# LITE-ON ELECTRONICS, INC.

Property of Lite-On Only

### Features

- \* Side looking special for LCD backlight.
- \* Ultra bright AlInGaP 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-S220KGKT	Water Clear	AlInGaP Green

### Notes:

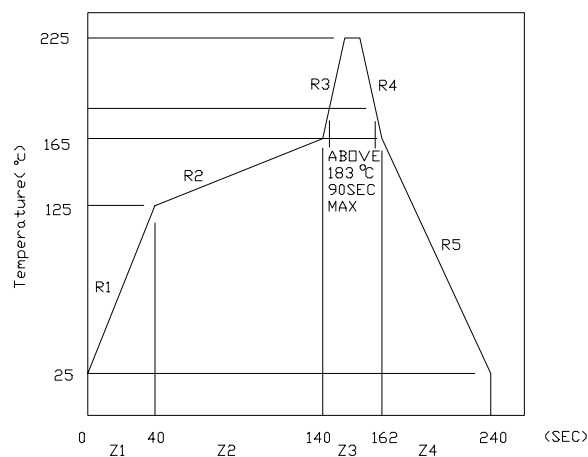
1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1$  mm (.004") unless otherwise noted.

## Property of Lite-On Only

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

Parameter	LTST-S220KGKT	Unit
Power Dissipation	75	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Continuous Forward Current	30	mA
Derating Linear From 50°C	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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Electrical Optical Characteristics At Ta=25°C

Parameter	Symbol	Part No. LTST-	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	IV	S220KGKT	20.0	35.0		mcd	IF = 20mA Note 1
Viewing Angle	$2\theta 1/2$	S220KGKT		130		deg	Note 2 (Fig.6)
Peak Emission Wavelength	$\lambda$ Peak	S220KGKT		574		nm	Measurement @Peak (Fig.1)
Dominant Wavelength	$\lambda$ d	S220KGKT		571		nm	Note 3
Spectral Line Half-Width	$\Delta \lambda$	S220KGKT		15		nm	
Forward Voltage	VF	S220KGKT		2.0	2.4	V	IF = 20mA
Reverse Current	IR	S220KGKT			100	$\mu$ A	VR = 5V
Capacitance	C	S220KGKT		40		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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## Typical Electrical / Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

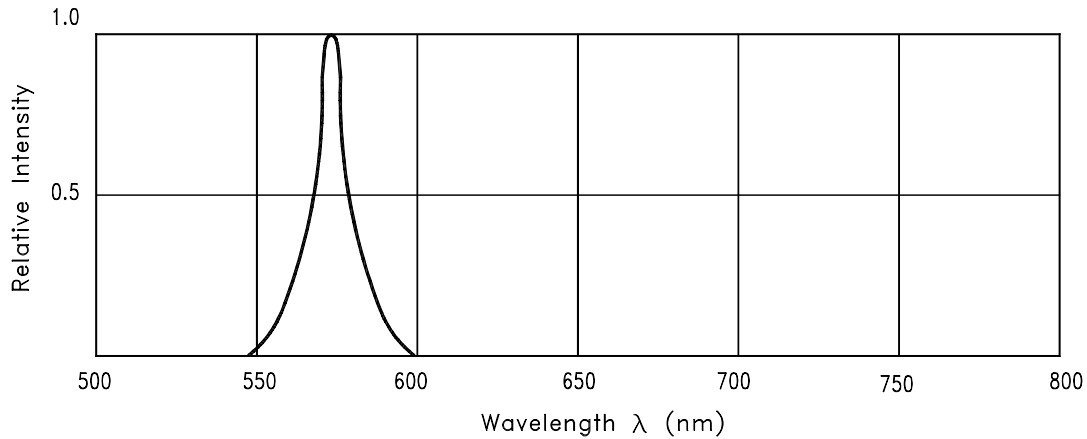


Fig.1 RELATIVE INTENSITY VS. WAVELENGTH

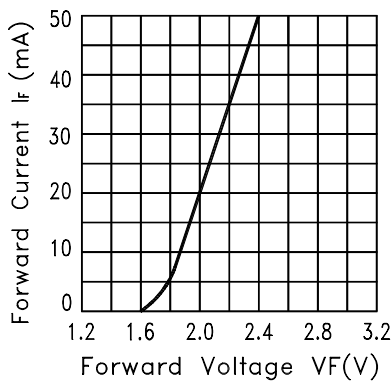


Fig.2 FORWARD CURRENT VS. FORWARD VOLTAGE

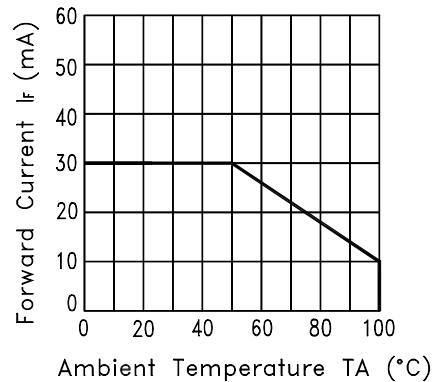


Fig.3 FORWARD CURRENT DERATING CURVE

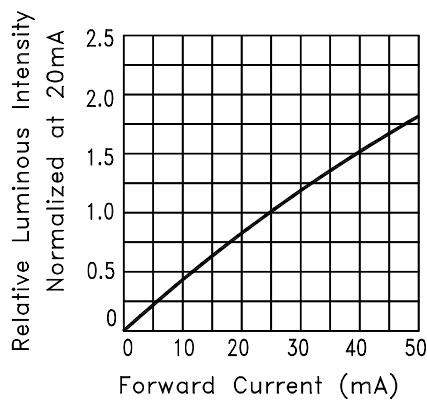


Fig.4 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

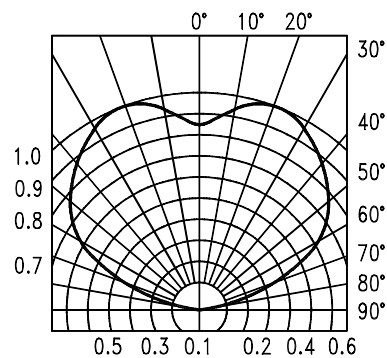


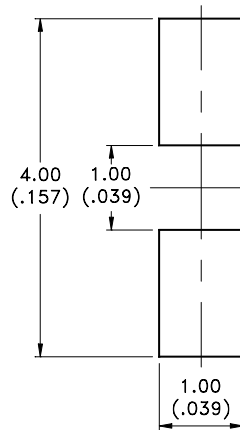
Fig.6 SPATIAL DISTRIBUTION

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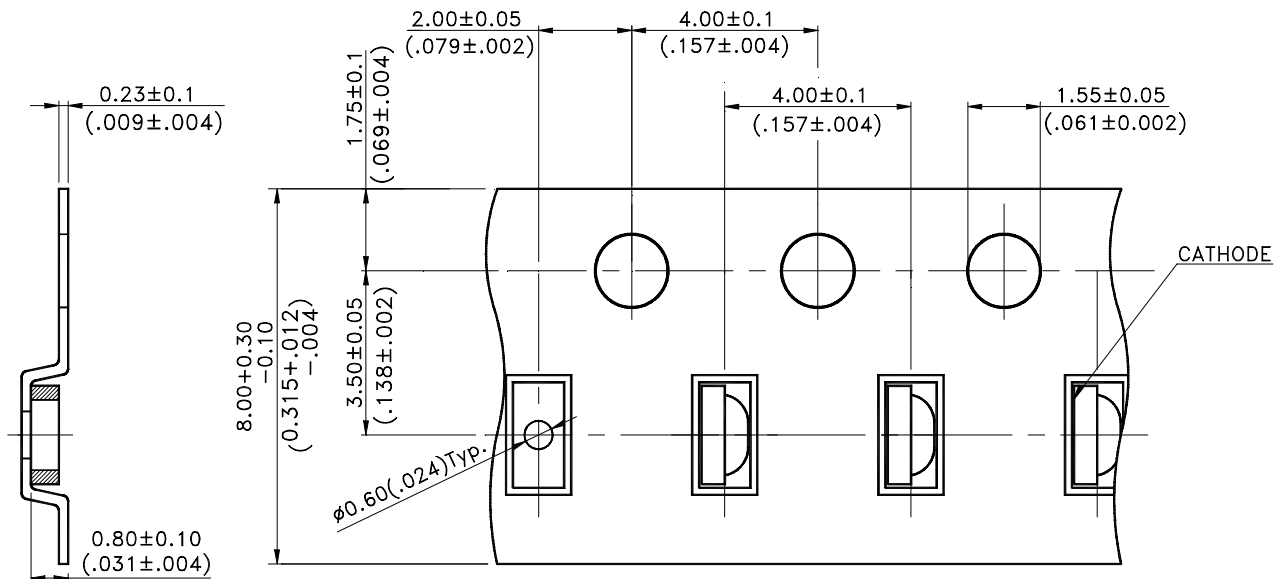
### Cleaning

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



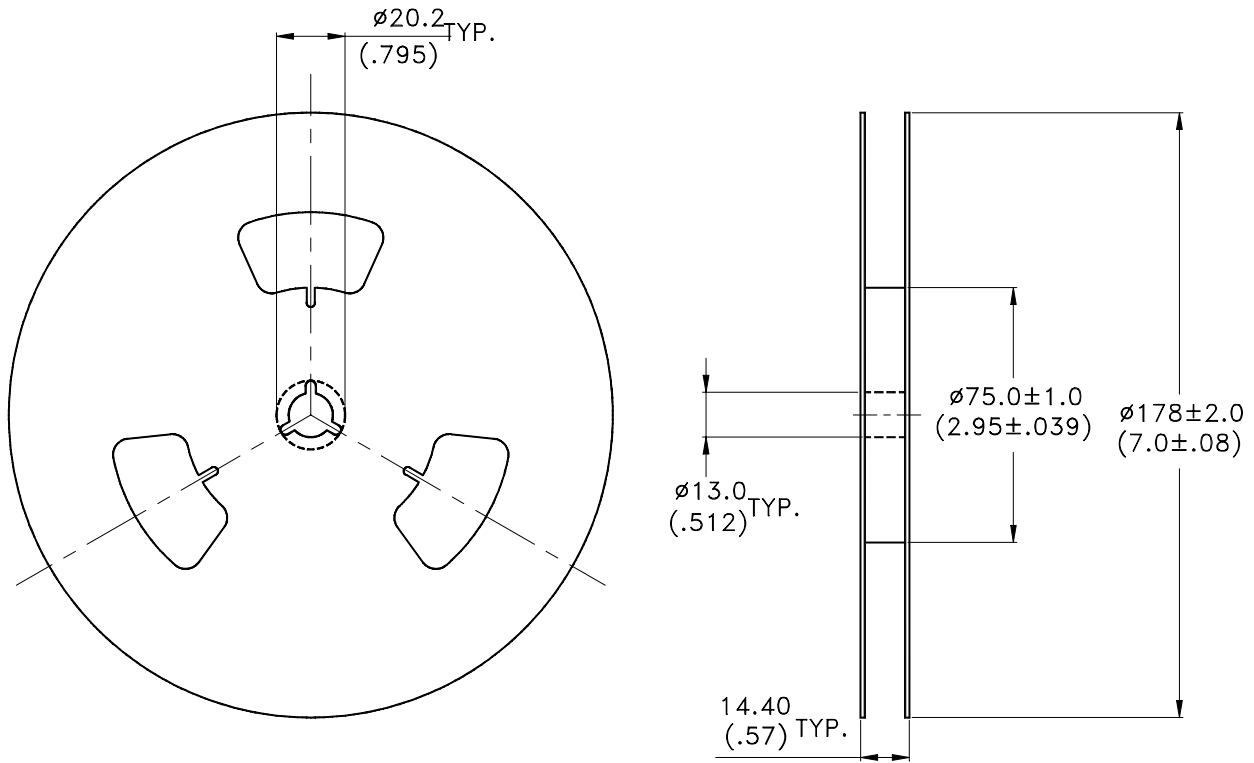
### Package Dimensions Of Tape And Reel



### 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- 4000 pieces per reel.
3. The maximum number of consecutive missing lamps is two.
4. In accordance with ANSI/EIA 481-1-A-1994 specifications.