

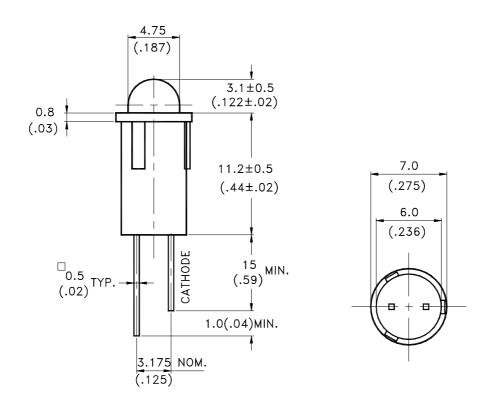
# LITEON ELECTRONICS, INC.

### Property of Lite-On Only

#### **Features**

- \* Designed for ease in circuit board assembly.
- \* Black case enhance contrast ratio.
- \* Solid state light source.
- \* Reliable and rugged.

## **Package Dimensions**



Part No.	•	Source
LTL-	Lens	Color
10233W	Green Diffused	Green

#### Notes:

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.25$ mm(.010") unless otherwise noted.
- 3. The holder color is black.
- 4. The holder raw material is PP.
- 5. The LED lamp is LTL-10233W.

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# Absolute Maximum Ratings at Ta=25℃

Parameter	Maximum Rating	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	0.4	mA/°C			
Reverse Voltage	5	V			
Operating Temperature Range	-55°C to + 100°C				
Storage Temperature Range	-55°C to + 100°C				
Lead Soldering Temperature [1.6mm(.063") From Body]	260°C for 5 Seconds				

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## Electrical Optical Characteristics at Ta=25°C

Parameter	Symbol	Part No. LTL-	Min.	Тур.	Max.	Unit	Test Condition
Luminous Intensity	Iv	633-1	12.6	40		mcd	$I_F = 10 \text{mA}$ Note 1,4
Viewing Angle	2 θ 1/2	633-1		60		deg	Note 2 (Fig.6)
Peak Emission Wavelength	λp	633-1		565		nm	Measurement @Peak (Fig.1)
Dominant Wavelength	λd	633-1		569		nm	Note 3
Spectral Line Half-Width	Δλ	633-1		30		nm	
Forward Voltage	$V_{\mathrm{F}}$	633-1		2.1	2.6	V	$I_F = 20 mA$
Reverse Current	IR	633-1			100	$\mu$ A	$V_R = 5V$
Capacitance	С	633-1		35		рF	$V_F = 0$ , $f = 1MH_Z$

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. Iv needs  $\pm 15\%$  additionary for guaranteed limits.

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### Typical Electrical / Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

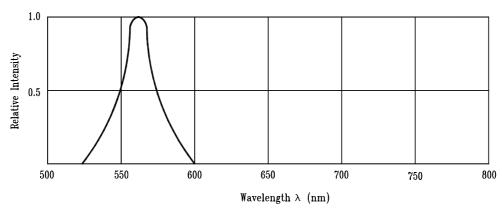


Fig.1 Relative Intensity vs. Wavelength

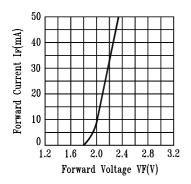


Fig.2 Forward Current vs. Forward Voltage

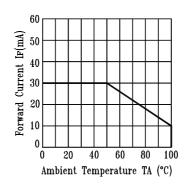


Fig.3 Forward Current **Derating Curve** 

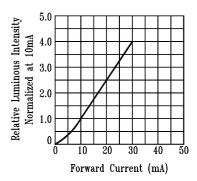


Fig.4 Relative Luminous Intensity vs. Forward Current

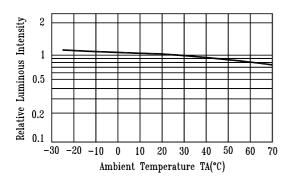


Fig.5 Luminous Intensity vs. Ambient Temperature

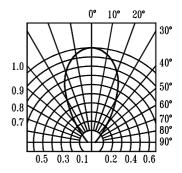


Fig.6 Spatial Distribution

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