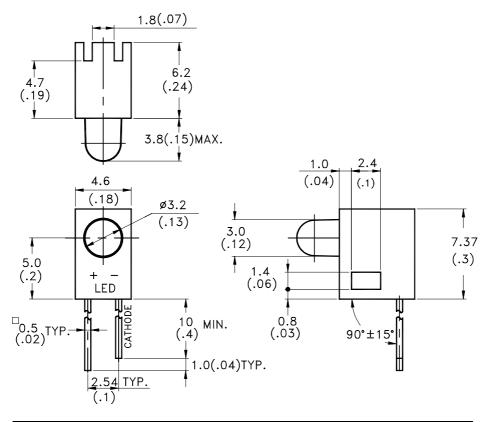
# LITEON ELECTRONICS, INC.

#### Property of Lite-On Only

#### **Features**

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

#### **Package Dimensions**



Part No.	•	Source
LTL-	Lens	Color
4221N	Red Diffused	Hi.Eff.Red

#### 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 PC.
- 5. The LED lamp is LTL-4221N.

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## LITEON ELECTRONICS, INC.

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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			

Part No.: LTL-155EHA of Page:



### LITEON ELECTRONICS, INC.

#### Property of Lite-On Only

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

Parameter	Symbol	Part No. LTL-	Min.	Тур.	Max.	Unit	Test Condition
Luminous Intensity	Iv	155ЕНА	2.5	8.7		mcd	$I_F = 10mA$ Note 1,4
Viewing Angle	2 \theta 1/2	155ЕНА		60		deg	Note 2 (Fig.6)
Peak Emission Wavelength	λp	155EHA		635		nm	Measurement @Peak (Fig.1)
Dominant Wavelength	λd	155ЕНА		623		nm	Note 3
Spectral Line Half-Width	Δλ	155EHA		40		nm	
Forward Voltage	VF	155ЕНА		2.0	2.6	V	$I_F = 20 \text{mA}$
Reverse Current	$I_R$	155EHA			100	$\mu$ A	$V_R = 5V$
Capacitance	С	155EHA		20		рF	$V_F = 0$ , $f = 1MHz$

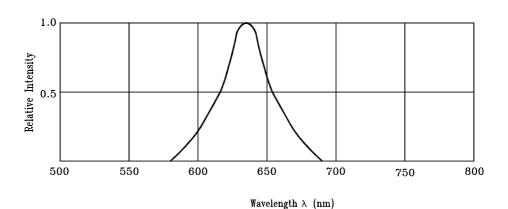
Note: 1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.

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

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Part No.: LTL-133EHA	Page:	3	of	4	

#### Typical Electrical / Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)



Relative Intensity vs. Wavelength

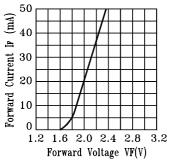


Fig.2 Forward Current vs. Forward Voltage

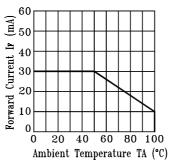


Fig.3 Forward Current Derating Curve

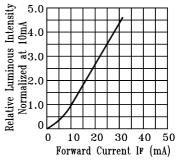


Fig.4 Relative Luminous Intensity vs. Forward Current

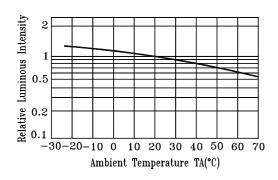


Fig.5 Luminous Intensity vs. Ambient Temperature

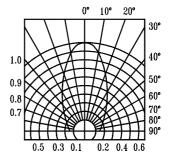


Fig.6 Spatial Distribution

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