



**Spec No.: DS-20-92-0167** Effective Date: 07/26/2000

Revision: -

**LITE-ON DCC** 

**RELEASE** 

BNS-OD-FC001/A4



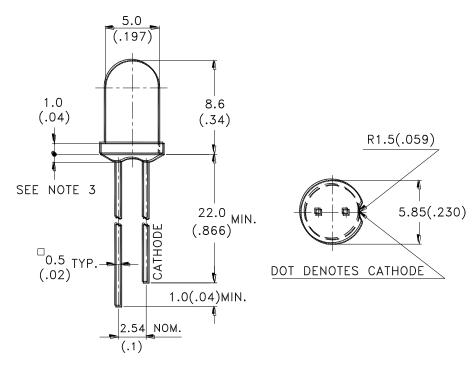
# LITEON ELECTRONICS, INC.

Property of Lite-On Only

#### **Features**

- \* High Intensity.
- \* Popular T-1 3/4 diameter Package.
- \* Selected minimum intensities.
- \* Wide viewing Angle.
- \* General purpose leads.
- \* Reliable and rugged.

### **Package Dimensions**



Part No.	Lens	Source Color		
LTL-307P	Red Diffused	Bright Red		

#### Notes:

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.25$ mm(.010") unless otherwise noted.
- 3. Protruded resin under flange is 1.0mm(.04") max.
- 4. Lead spacing is measured where the leads emerge from the package.
- 5. Specifications are subject to change without notice.

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

Parameter	Maximum Rating	Unit	
Power Dissipation	40	mW	
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	60	mA	
Continuous Forward Current	15	mA	
Derating Linear From 50°C	0.2	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	Min.	Тур.	Max.	Unit	Test Condition
Luminous Intensity	Iv	1.7	5.6		mcd	I <sub>F</sub> = 10mA Note 1,4
Viewing Angle	2 \theta 1/2		50		deg	Note 2 (Fig.6)
Peak Emission Wavelength	λР		697		nm	Measurement @Peak (Fig.1)
Dominant Wavelength	λd		657		nm	Note 3
Spectral Line Half-Width	Δλ		90		nm	
Forward Voltage	$V_{\mathrm{F}}$		2.1	2.6	V	$I_F = 20 \text{mA}$
Reverse Current	$I_R$			100	$\mu$ A	$V_R = 5V$
Capacitance	С		55		pF	$V_F = 0$ , $f = 1MHz$

- Note: 1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commission International De L'Eclairage) 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 Iv guarantee should be added  $\pm 15\%$ .

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### Typical Electrical / Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

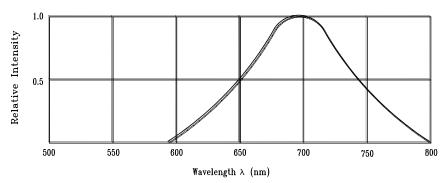
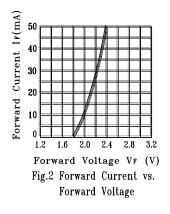
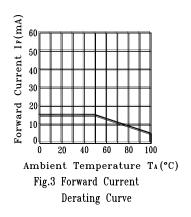
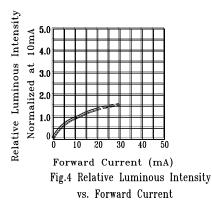
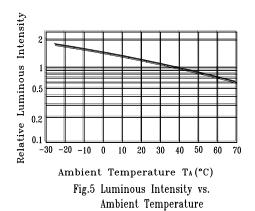


Fig.1 Relative Intensity vs. Wavelength









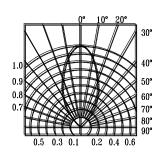


Fig.6 Spatial Distribution

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**Authorized Distributor** 

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