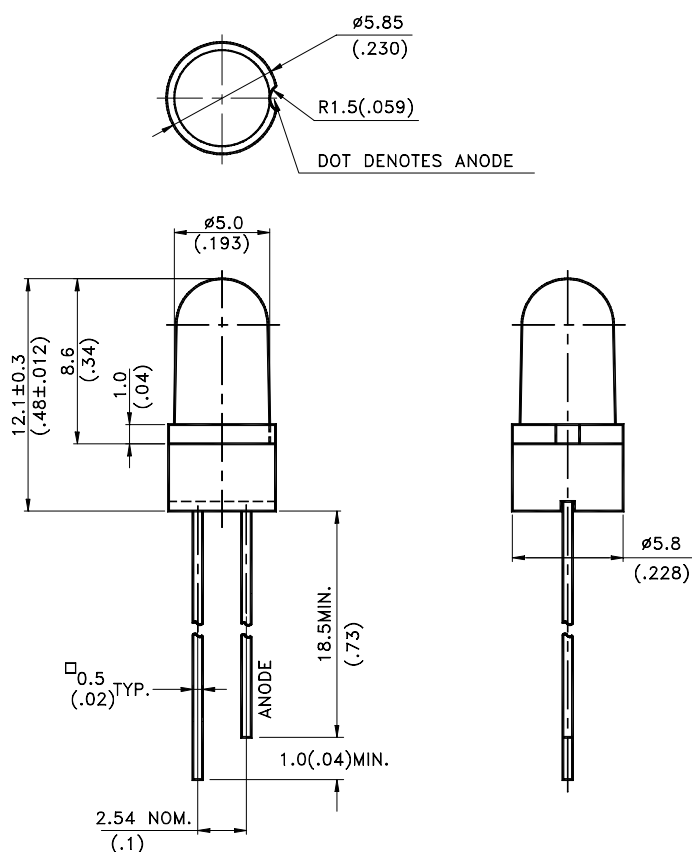


Features

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

Package Dimensions



Lamp Part No.	Lens	Source Color
LTL-307C	Red Diffused	AlGaAs Red

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25 \text{ mm}$ (.010") unless otherwise noted.
3. The spacer color is black.
4. Specifications are subject to change without notice.



L I T E - O N E L E C T R O N I C S , I N C .

Property of Lite-On Only

Absolute Maximum Ratings at TA=25°C

Parameter	Maximum Rating	Unit
Power Dissipation	100	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	200	mA
Continuous Forward Current	40	mA
Derating Linear From 50°C	0.5	mA/°C
Reverse Voltage	4	V
Operating Temperature Range	-40°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	

Electrical / Optical Characteristics at TA=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I _v	40	135		mcd	I _F = 20mA Note 1,4
Viewing Angle	2 $\theta_{1/2}$		50		deg	Note 2 (Fig.5)
Peak Emission Wavelength	λ_p		660		nm	Measurement @Peak (Fig.1)
Dominant Wavelength	λ_d		638		nm	Note 3
Spectral Line Half-Width	$\Delta \lambda$		20		nm	
Forward Voltage	V _F		1.8	2.4	V	I _F = 20mA
Reverse Current	I _R			100	μA	V _R = 4V
Capacitance	C		30		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, λ_d is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

4. The I_v guarantee should be added $\pm 15\%$.

Typical Electrical / Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

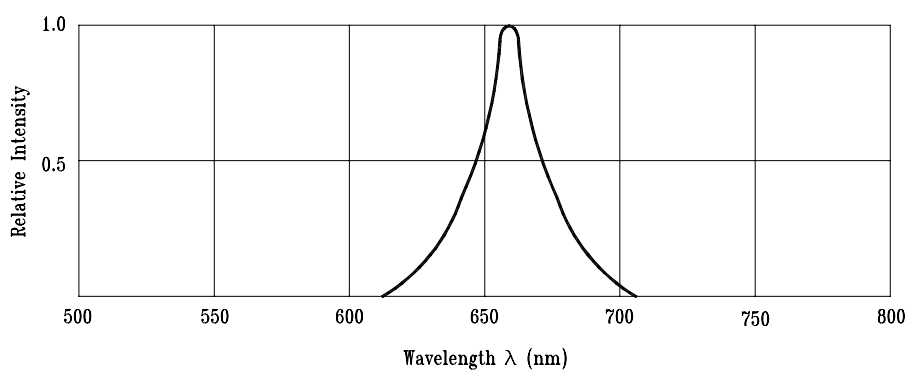


Fig.1 Relative Intensity vs. Wavelength

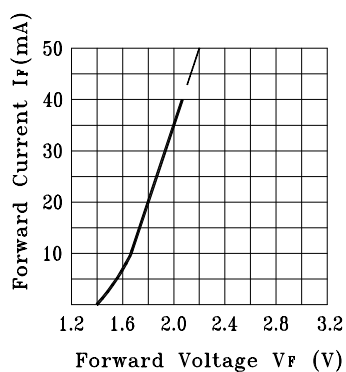


Fig.2 Forward Current vs. Forward Voltage

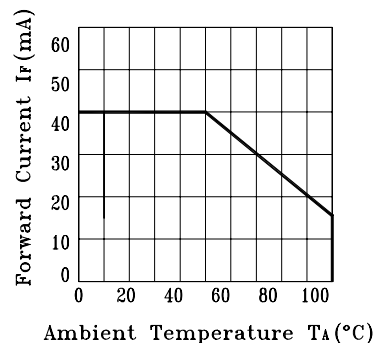


Fig.3 Forward Current Derating Curve

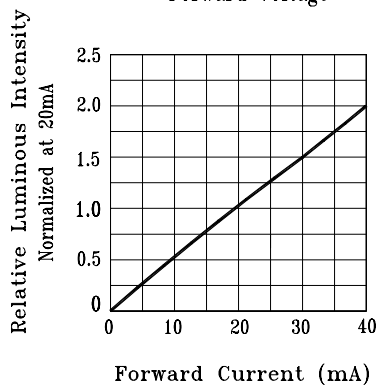


Fig.4 Relative Luminous Intensity vs. Forward Current

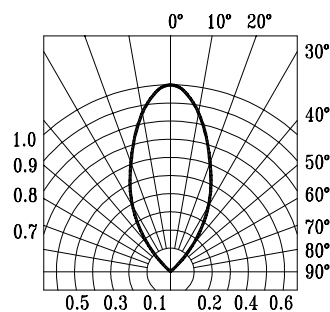


Fig.5 Spatial Distribution