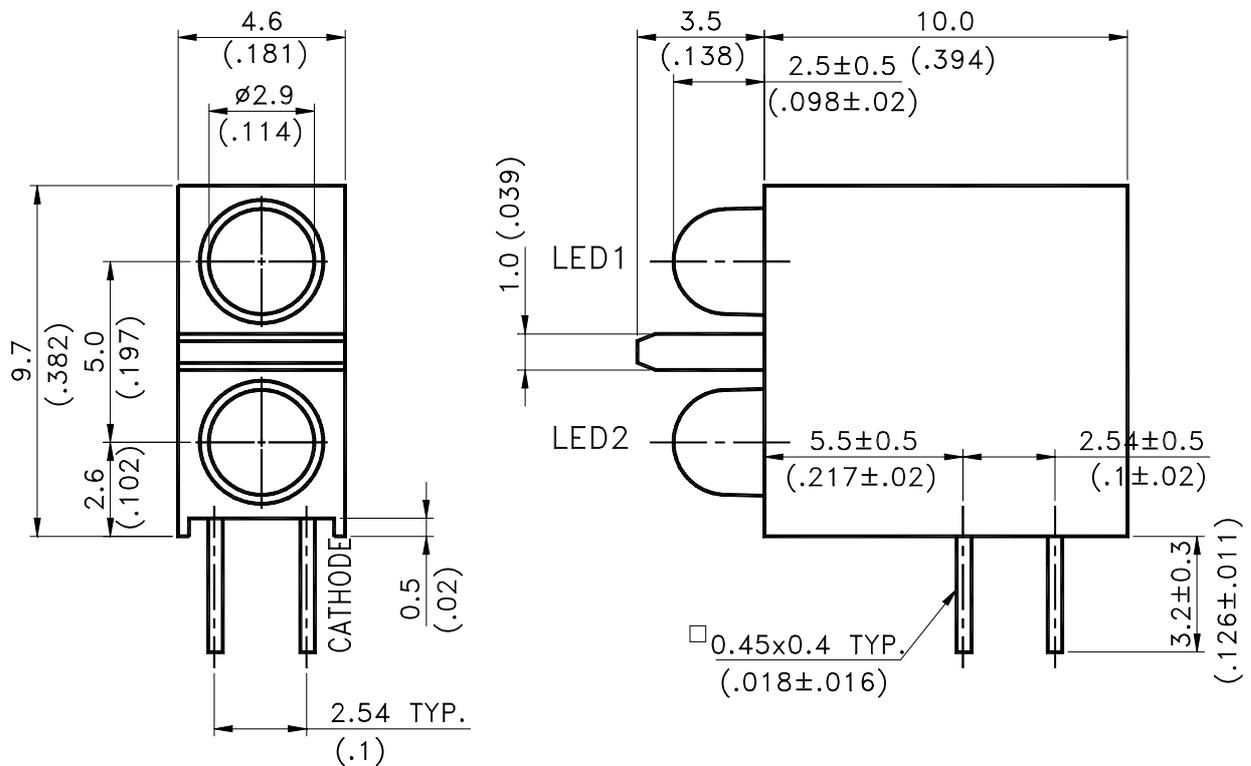


Property of Lite-On Only

Features

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

Package Dimensions



Part No.	Lens	Source Color
LTL-4231N	Green Diffused	Green
LTL-4221N	Red Diffused	Hi.Eff. Red

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25\text{mm}(.010\text{'})$ unless otherwise noted.
3. The holder color is black.
4. The holder raw material is PC.
5. The LED1 lamp is LTL-4231N
The LED2 lamp is LTL-4221N & the holder is 46L029.



Absolute Maximum Ratings at Ta=25°C

Parameter	Green	Hi.Eff.Red	Unit
Power Dissipation	100	100	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	120	120	mA
Continuous Forward Current	30	30	mA
Derating Linear From 50°C	0.4	0.4	mA/°C
Reverse Voltage	5	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		

Electrical Optical Characteristics at Ta=25°C

Parameter	Symbol	LTL-42H1NMHFP	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I _v	Green Hi.Eff. Red	3.7 2.5	12.6 8.7		mcd	I _F = 10mA Note 1,4
Viewing Angle	2θ _{1/2}	Green Hi.Eff. Red		60		deg	Note 2 (Fig.6)
Peak Emission Wavelength	λ _p	Green Hi.Eff. Red		565 635		nm	Measurement @Peak (Fig.1)
Dominant Wavelength	λ _d	Green Hi.Eff. Red		569 623		nm	Note 3
Spectral Line Half-Width	Δλ	Green Hi.Eff. Red		30 40		nm	
Forward Voltage	V _F	Green Hi.Eff. Red		2.1 2.0	2.6 2.6	V	I _F = 20mA
Reverse Current	I _R	Green Hi.Eff. Red			100	μA	V _R = 5V
Capacitance	C	Green Hi.Eff. Red		35 20		PF	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. θ_{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. I_v need ±15% additionalary for guaranteed limits.

Property of Lite-On Only

Typical Electrical / Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

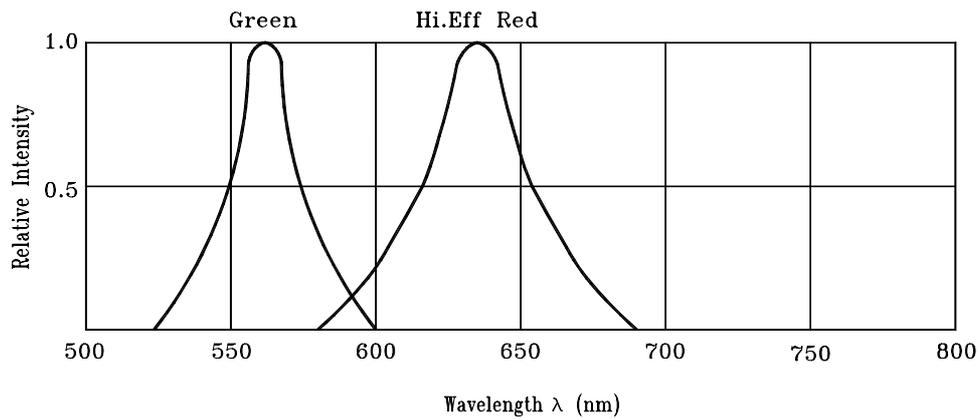


Fig.1 Relative Intensity vs. Wavelength

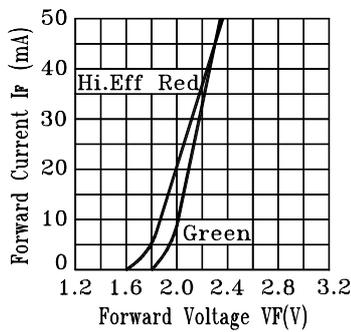


Fig.2 Forward Current vs. Forward Voltage

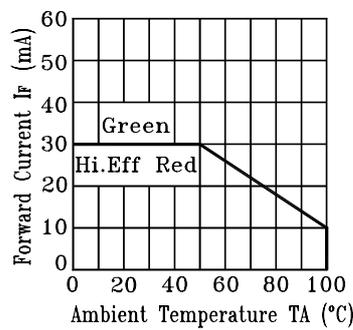


Fig.3 Forward Current Derating Curve

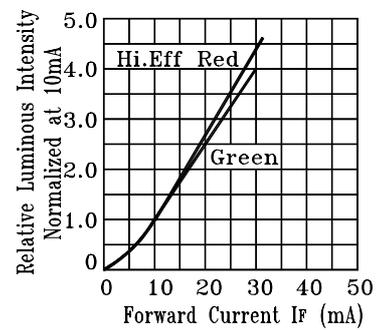


Fig.4 Relative Luminous Intensity vs. Forward Current

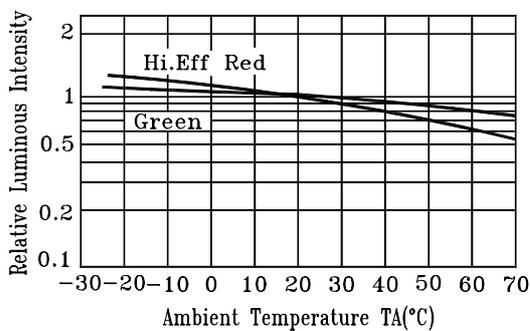


Fig.5 Luminous Intensity vs. Ambient Temperature

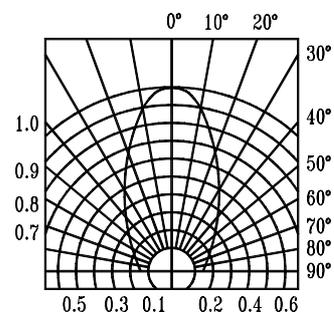


Fig.6 Spatial Distribution