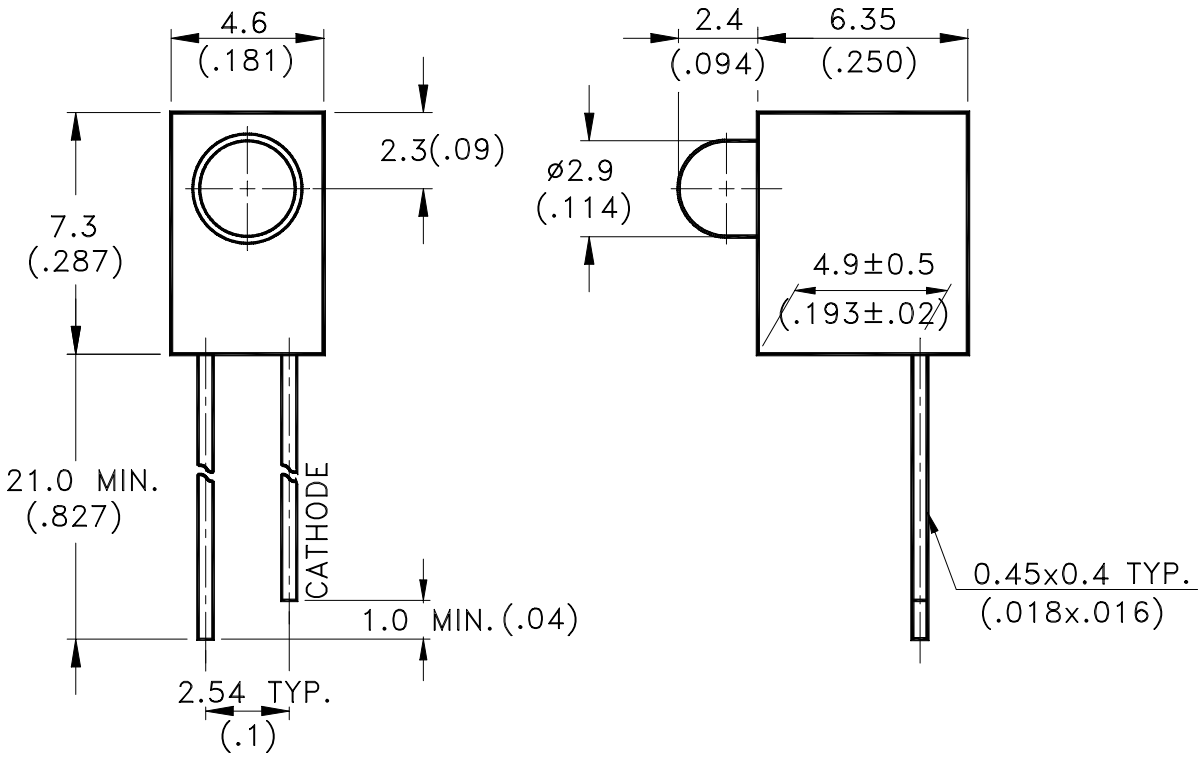
Features

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

Package Dimensions



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

Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25mm(.010") unless otherwise noted.
3. The holder color is black.
4. The holder raw material is PBT.
5. The LED lamp is LTL-4221N.

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

Electrical Optical Characteristics at Ta=25℃

Parameter	Symbol	Part No. LTL-	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I_V	4221NHC	2.5	8.7		mcd	I_F = 10mA Note 1,4
Viewing Angle	$2\theta_{1/2}$	4221NHC		60		deg	Note 2 (Fig.6)
Peak Emission Wavelength	λp	4221NHC		635		nm	Measurement @Peak (Fig.1)
Dominant Wavelength	λd	4221NHC		623		nm	Note 3
Spectral Line Half-Width	$\Delta\lambda$	4221NHC		40		nm	
Forward Voltage	V_F	4221NHC		2.0	2.6	V	I_F = 20mA
Reverse Current	I_R	4221NHC			100	μA	V_R = 5V
Capacitance	C	4221NHC		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. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

3. The dominant wavelength, λd is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

4. Iv needs ± 15% additionary for guaranteed limits.

Typical Electrical / Optical Characteristics Curves

(25℃ Ambient Temperature Unless Otherwise Noted)

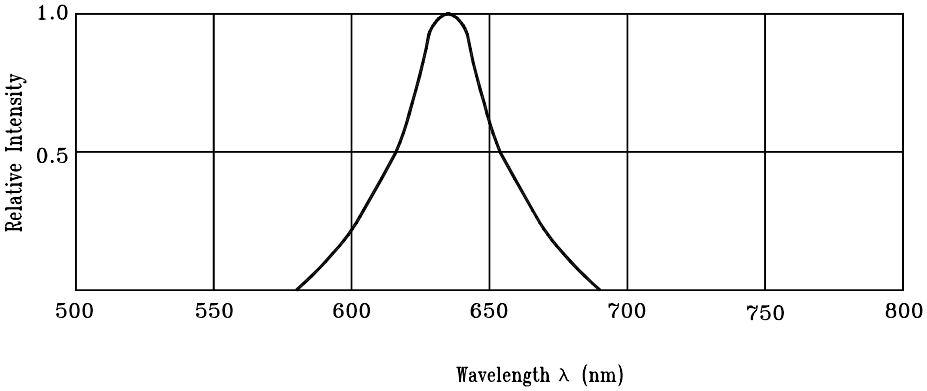


Fig.1 Relative Intensity vs. Wavelength

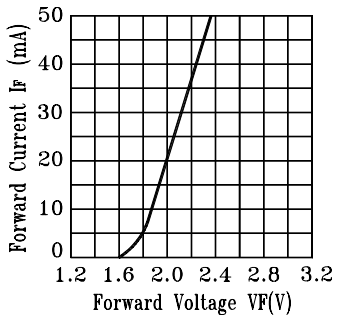


Fig.2 Forward Current vs. Forward Voltage

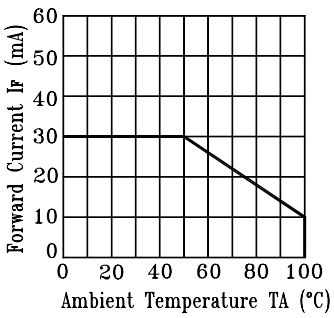


Fig.3 Forward Current Derating Curve

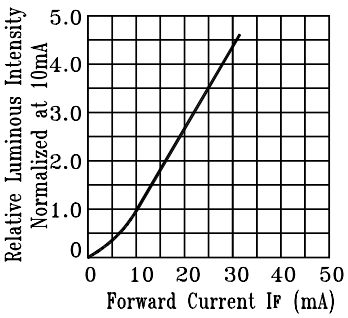


Fig.4 Relative Luminous Intensity vs. Forward Current

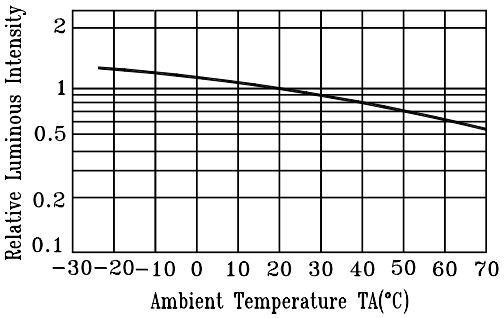


Fig.5 Luminous Intensity vs. Ambient Temperature

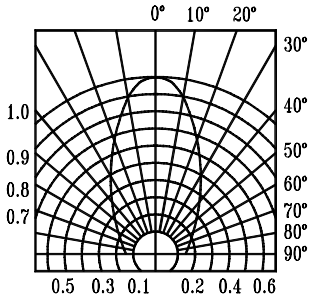


Fig.6 Spatial Distribution