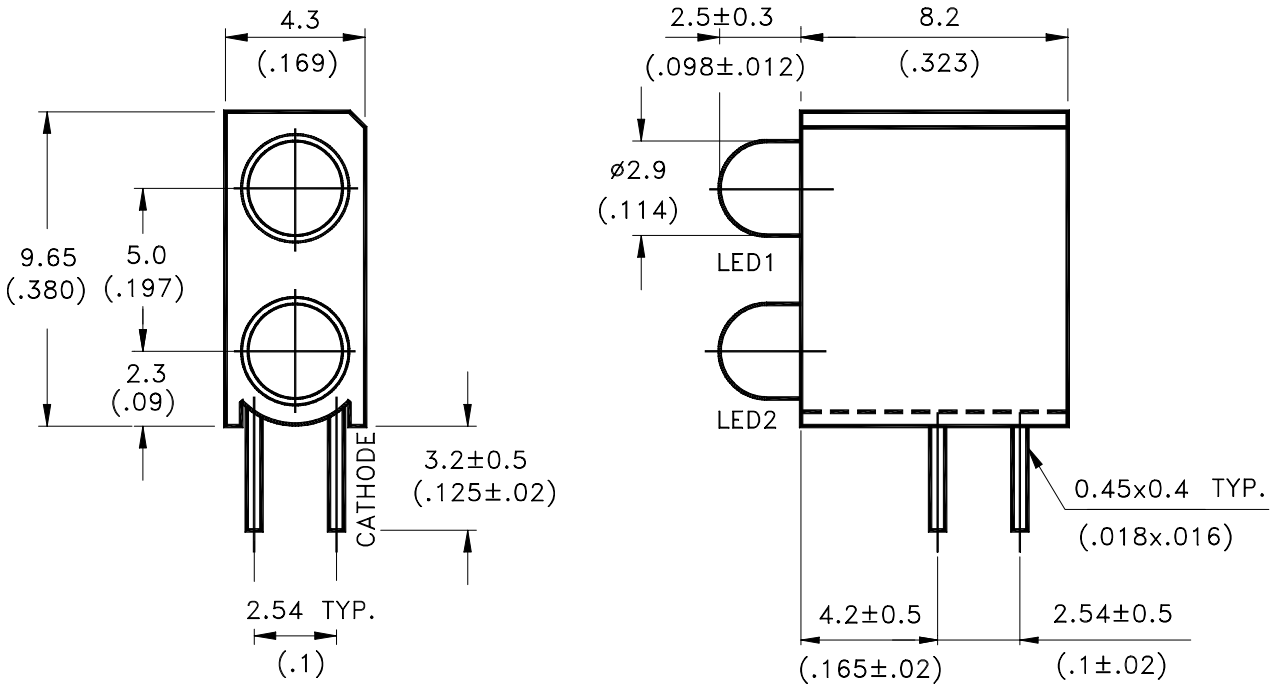
Features

* 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-4201N	Red Diffused	Red
LTL-4231N	Green Diffused	Green

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 LED1 lamp is LTL-4201N
   The LED2 lamp is LTL-4231N.
5. Specifications are subject to change without notice.

Absolute Maximum Ratings at T_a=25℃

Parameter	Green	Red	Unit
Power Dissipation	100	80	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	120	200	mA
Continuous Forward Current	30	40	mA
Derating Linear From 50℃	0.4	0.5	mA/℃
Reverse Voltage	5	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	LTL-4201N LTL-4231N	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	Iv	Red Green	0.4 3.7	1.1 12.6		mcd	IF = 10mA Note 1,4
Viewing Angle	2θ 1/2	Red Green		60		deg	Note 2 (Fig.6)
Peak Emission Wavelength	λp	Red Green		655 565		nm	Measurement @Peak (Fig.1)
Dominant Wavelength	λd	Red Green		651 569		nm	Note 3
Spectral Line Half-Width	Δλ	Red Green		24 30		nm	
Forward Voltage	VF	Red Green		1.7 2.1	2.0 2.6	V	IF = 20mA
Reverse Current	IR	Red Green			100	μA	VR = 5V
Capacitance	C	Red Green		30 35		pF	VF = 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)

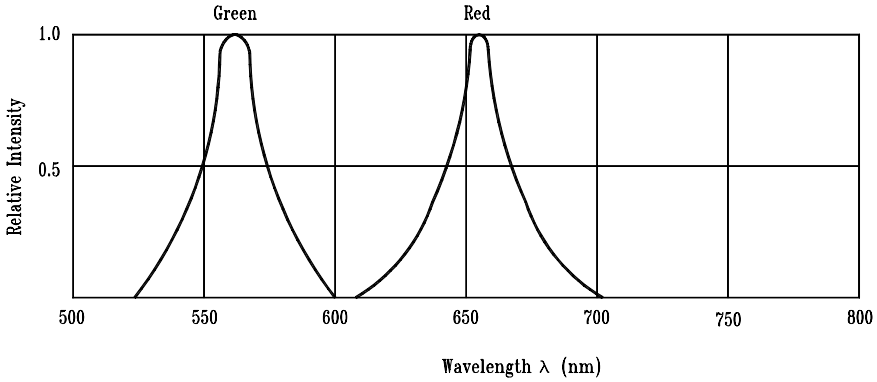


Fig.1 Relative Intensity vs. Wavelength

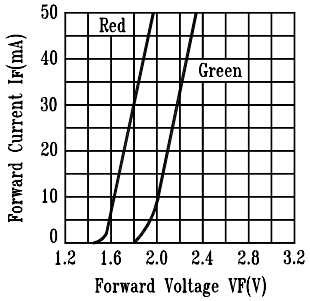


Fig.2 Forward Current vs. Forward Voltage

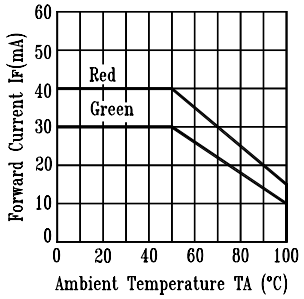


Fig.3 Forward Current Derating Curve

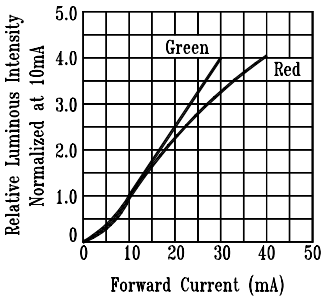


Fig.4 Relative Luminous Intensity vs. Forward Current

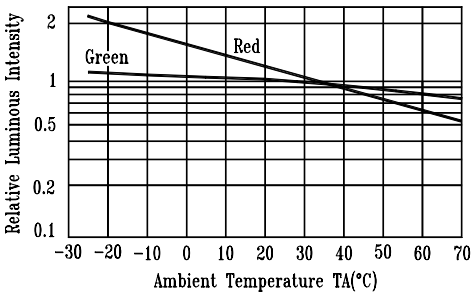


Fig.5 Luminous Intensity vs. Ambient Temperature

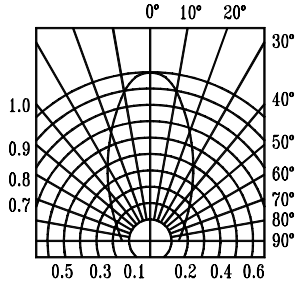


Fig.6 Spatial Distribution