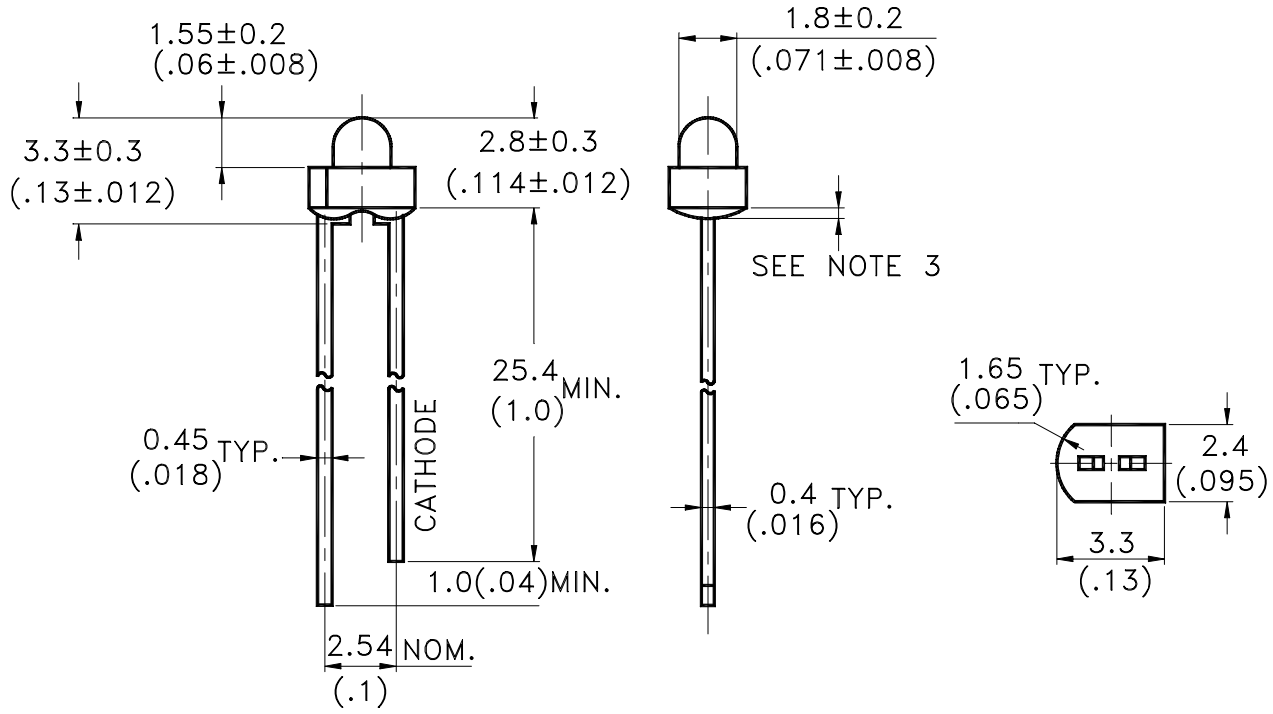
Features

* Low power consumption.
* General purpose leads.
* I.C. Compatible/low current requirements.
* Reliable and rugged

Package Dimensions



Part No.	Lens	Source Color
LTL-709R	Red Diffused	Red

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25mm(.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.

Absolute Maximum Ratings at T_A=25℃

Parameter	Maximum Rating	Unit
Power Dissipation	80	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	200	mA
Continuous Forward Current	40	mA
Derating Linear From 50℃	0.5	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 T_A=25℃

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I_V	1.1	3.7		mcd	I_F = 10mA Note 1,4
Viewing Angle	$2\theta_{1/2}$		38		deg	Note 2 (Fig.6)
Peak Emission Wavelength	λ_P		655		nm	Measurement @Peak (Fig.1)
Dominant Wavelength	λ_d		651		nm	Note 3
Spectral Line Half-Width	$\Delta\lambda$		24		nm	
Forward Voltage	V_F		1.7	2.0	V	I_F = 20mA
Reverse Current	I_R			100	μA	V_R = 5V
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 Iv guarantee should be added ± 15% .

Typical Electrical / Optical Characteristics Curves

(25℃ Ambient Temperature Unless Otherwise Noted)

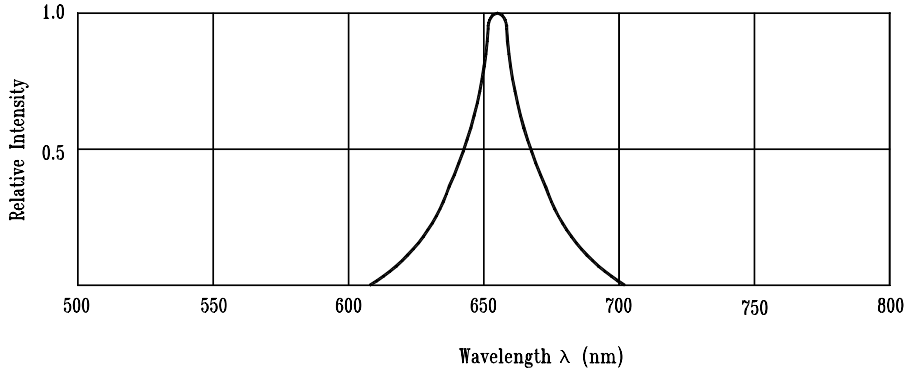


Fig.1 Relative Intensity vs. Wavelength

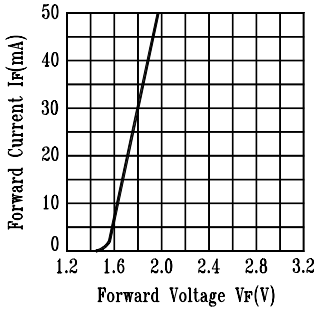


Fig.2 Forward Current vs. Forward Voltage

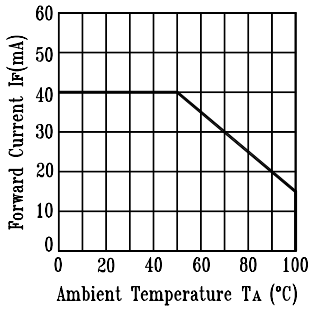


Fig.3 Forward Current Derating Curve

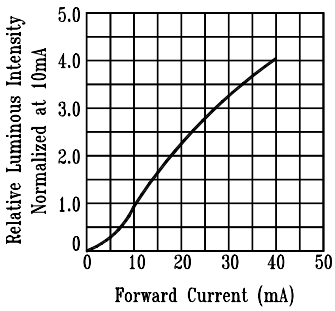


Fig.4 Relative Luminous Intensity vs. Forward Current

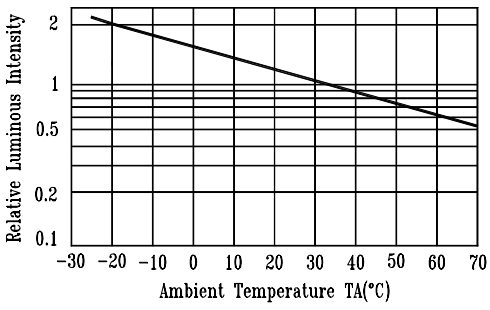


Fig.5 Luminous Intensity vs. Ambient Temperature

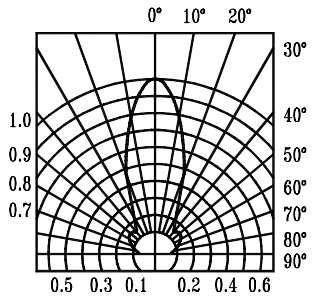


Fig.6 Spatial Distribution