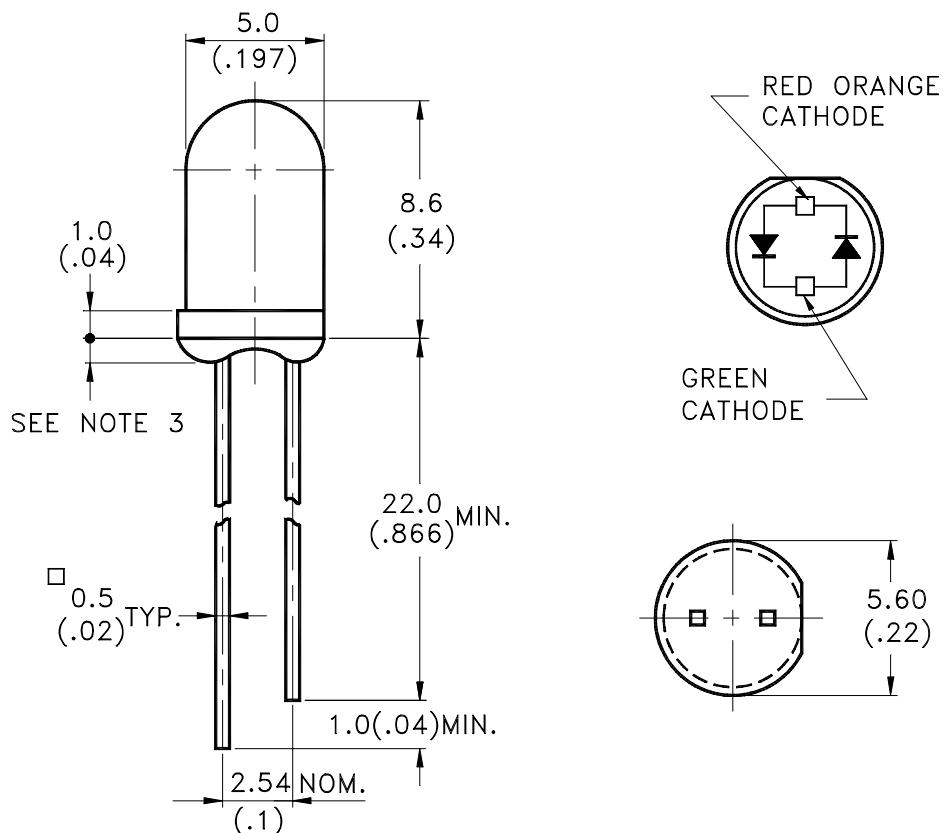


**Features**

- \* Green and Red Orange chips are matched for uniform light output.
- \* T-1<sub>3</sub>/<sub>4</sub> type package.
- \* Long life solid state reliability.
- \* Low power consumption.
- \* I.C compatible.

**Package Dimensions**

Part No.	Lens	Source Color
LTL-298WJ	White Diffused	Green / Red Orange

**NOTES:**

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25\text{mm} (.010")$  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.



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**Absolute Maximum Ratings at TA=25°C**

Parameter	Green	Red Orange	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
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	Color	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I <sub>V</sub>	Green Red Orange	5.6 5.6	19 19		mcd	I <sub>F</sub> = 20mA I <sub>F</sub> = 20mA Note 1,4
Viewing Angle	2θ <sub>1/2</sub>	Green Red Orange		50 50		deg	Note 2 (Fig.6)
Peak Emission Wavelength	λ <sub>p</sub>	Green Red Orange		565 630		nm	Measurement @Peak (Fig.1)
Dominant Wavelength	λ <sub>d</sub>	Green Red Orange		569 621		nm	Note 3
Spectral Line Half-Width	Δλ	Green Red Orange		30 40		nm	
Forward Voltage	V <sub>F</sub>	Green Red Orange		2.1 2.0	2.6 2.6	V	I <sub>F</sub> = 20mA I <sub>F</sub> = 20mA
Reverse Current	I <sub>R</sub>	Green Red Orange			100	μA	V <sub>R</sub> = 5V
Capacitance	C	Green Red Orange		35 20		pF	V <sub>F</sub> = 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. θ<sub>1/2</sub> is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
3. The dominant wavelength, λ<sub>d</sub> is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
4. The I<sub>V</sub> guarantee should be added ±15%.
5. Reverse current is controlled by dice source.

## Typical Electrical / Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

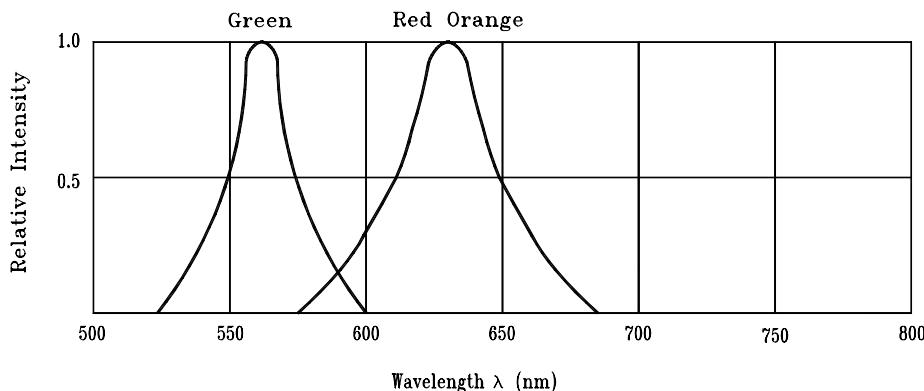


Fig.1 Relative Intensity vs. Wavelength

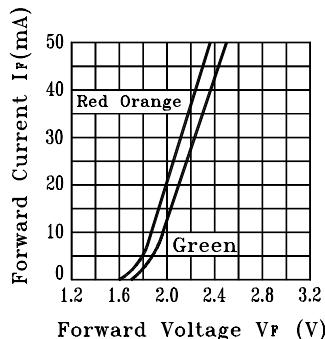


Fig.2 Forward Current vs. Forward Voltage

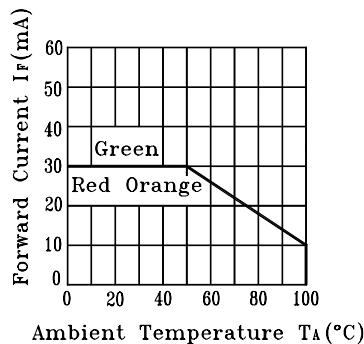


Fig.3 Forward Current Derating Curve

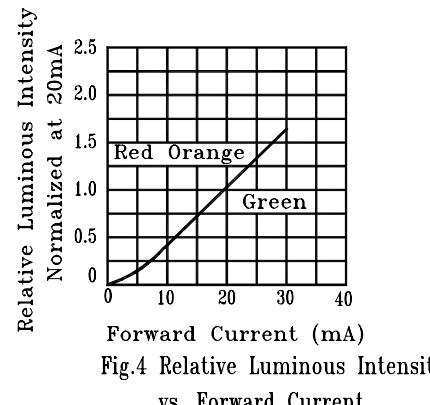


Fig.4 Relative Luminous Intensity vs. Forward Current

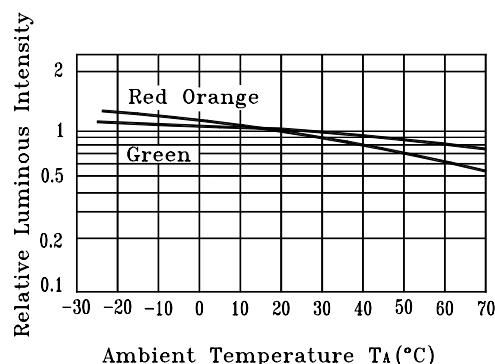


Fig.5 Luminous Intensity vs. Ambient Temperature

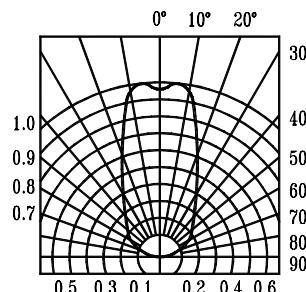


Fig.6 Spatial Distribution