



T-1 $\frac{3}{4}$ (5mm) Bi-Color Indicator Lamp

LTL- 298VJ Red - Green

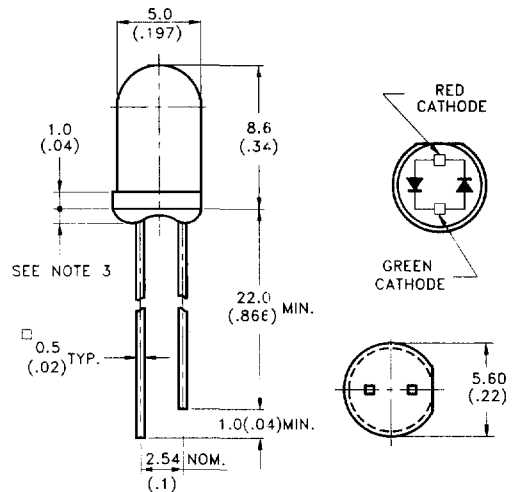
Features

- Red and Green chips are matched for uniform light output.
- T-1 $\frac{3}{4}$ type package.
- Long life solid state reliability.
- Low power consumption.
- I.C. compatible.

Description

The Red/Green LTL-298VJ bicolor lamp is a white diffused, wide viewing angle, dual chips, utilizing Gallium Arsenide Phosphide on Gallium Phosphide Red Light Emitting Diode and Gallium Phosphide on Gallium Phosphide Green Light Emitting Diode. The dual chips operating dependently of each other.

Package Dimensions



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.

Devices

Part No. LTL-	Lens		Source Color
	Color	Diffusion	
298VJ	White	Diffused	Red
			Green

Absolute Maximum Ratings at Ta=25 °C

Parameter	Red	Green	Unit
Power Dissipation	80	100	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	200	120	mA
Continuous Forward Current	40	30	mA
Derating Linear From 50 °C	0.5	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 (0.063in) From Body]	260 °C for 5 Seconds		

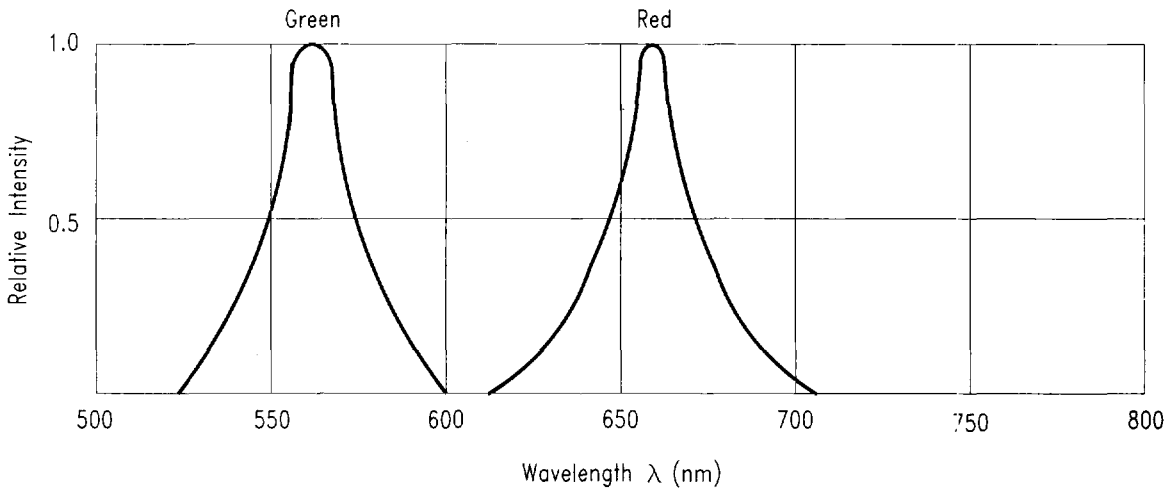


Fig.1 RELATIVE INTENSITY VS. WAVELENGTH

LED LAMPS

Electrical / Optical Characteristics and Curves at Ta = 25 °C

Parameter	Symbol	Part No. LTL-298VJ	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	Iv	Red Green	0.4 2.5	1.2 8.7		mcd	IF=20 mA Note 1
Viewing Angle	2 θ 1/2	Red Green		50		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	Δ λ	Red Green		24 30		nm	
Forward Voltage	VF	Red Green		1.7 2.1	2.0 2.8	V	IF=20mA
Reverse Current	IR	Red Green			100	μA	VR=5V
Capacitance	C	Red Green		30 35		PF	VF=0 f=1MHZ

Notes:

- Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
- θ^{1/2} is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
- The dominant wavelength, λ_d is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

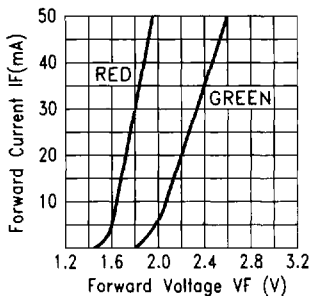


Fig.2 FORWARD CURRENT VS. FORWARD VOLTAGE

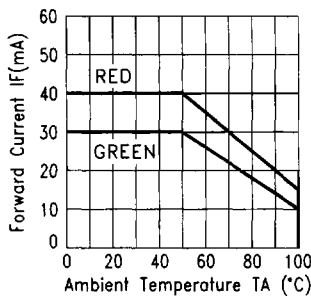


Fig.3 FORWARD CURRENT DERATING CURVE

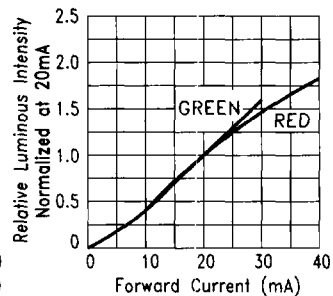


Fig.4 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

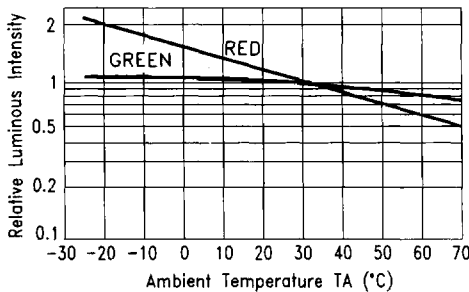


Fig.5 LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

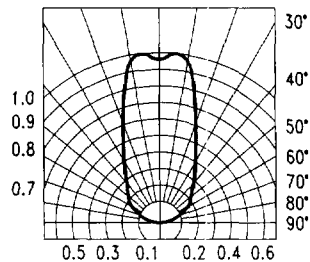


Fig.6 SPATIAL DISTRIBUTION