

LITE-ON**DUAL COLOR INDICATOR LAMP**

LTL-298VJ RED-GREEN

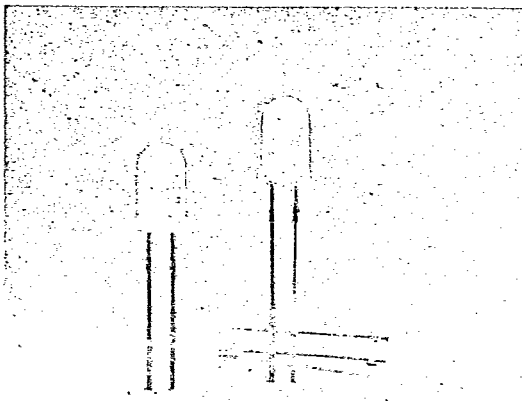
T-41-25

FEATURES

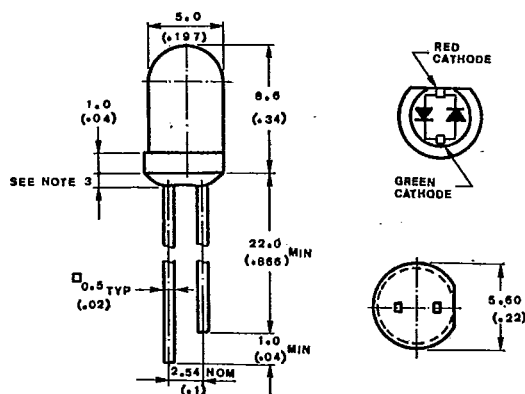
- RED AND GREEN CHIPS ARE MATCHED FOR UNIFORM LIGHT OUTPUT.
- T-1 1/4 TYPE PACKAGE.
- LONG LIFE-SOLID STATE RELIABILITY.
- LOW POWER CONSUMPTION.
- I.C. COMPATIBLE.

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 depently of each other.

**DEVICES**

PART NO. LTL-	LENS		SOURCE COLOR
	COLOR	DIFFUSION	
298VJ	White	Diffused	Red
			Green

PACKAGE DIMENSIONS**NOTES:**

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25\text{mm}$ ($\pm 0.010''$) unless otherwise noted.
3. Protruded resin under flange is 1.5mm ($0.059''$) 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 $T_A = 25^\circ\text{C}$

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 25°C	0.5	0.4	mA/ $^\circ\text{C}$
Reverse Voltage	5	5	V
Operating Temperature Range	-55°C to $+100^\circ\text{C}$		
Storage Temperature Range	-55°C to $+100^\circ\text{C}$		
Lead Soldering Temperature [1.6mm (0.063in) From Body]	260°C for 5 Seconds		

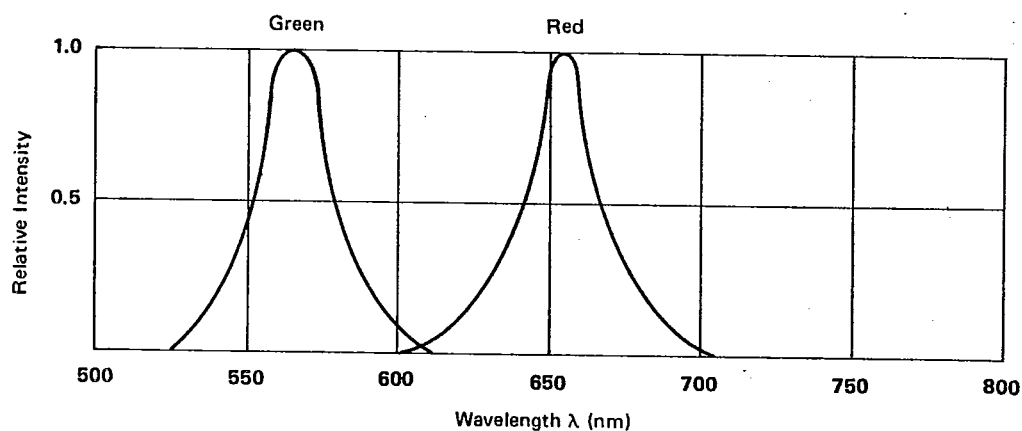


FIG. 1 RELATIVE INTENSITY VS. WAVELENGTH



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ELECTRICAL/OPTICAL CHARACTERISTICS AND CURVES AT $T_A = 25^\circ\text{C}$

PARAMETER	SYMBOL	PART NO. LTL-298VJ	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Luminous Intensity	I_v	Red Green	0.4 2.5	1.2 8.7		mcd	$I_F = 20\text{ mA}$ Note 1
Viewing Angle	$2\theta_{1/2}$	Red Green		50		deg.	Note 2 (Fig. 6)
Peak Emission Wavelength	λ_{PEAK}	Red Green		655 565		nm	Measurement @ Peak (Fig. 1)
Spectral Line Half Width	$\Delta\lambda$	Red Green		24 30		nm	
Forward Voltage	V_F	Red Green		1.7 2.1	2.0 2.8	V	$I_F = 20\text{ mA}$
Reverse Current	I_R	Red Green			100	μA	$V_R = 5\text{ V}$
Capacitance	C	Red Green		30 35		PF	$V_F = 0$ $f = 1\text{ MHz}$

NOTES: 1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commission Internationale 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.

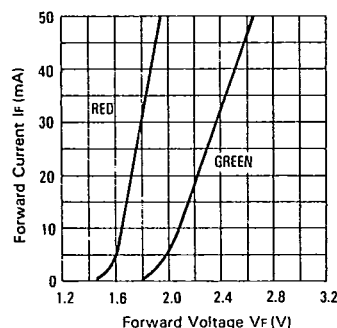


FIG. 2 FORWARD CURRENT VS. FORWARD VOLTAGE

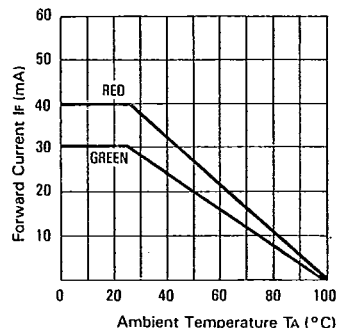


FIG. 3 FORWARD CURRENT DERATING CURVE

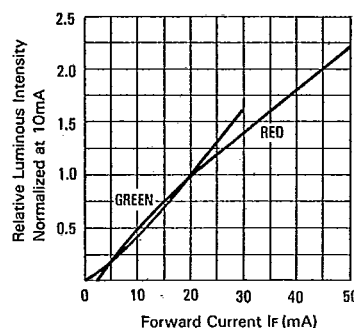


FIG. 4 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

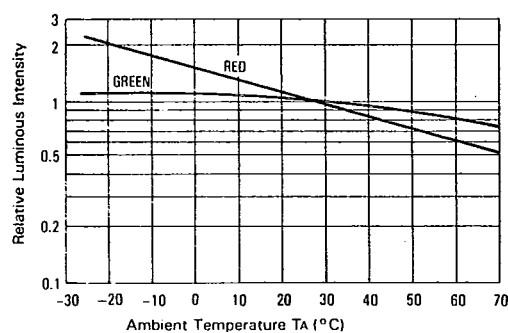


FIG. 5 LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

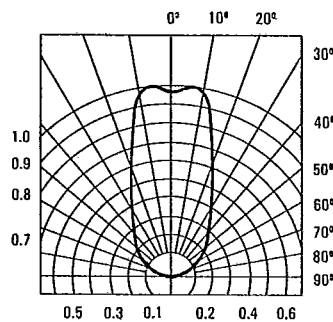


FIG. 6 SPATIAL DISTRIBUTION