LITEON

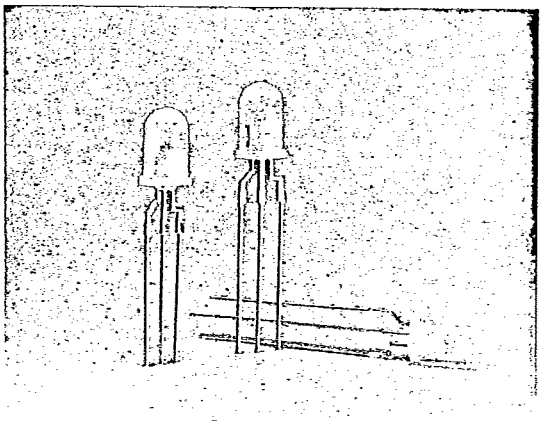
DUAL COLOR INDICATOR LAMP

LTL-52RG BRIGHT RED – GREEN

T-41-25

FEATURES

- RED AND GREEN CHIPS ARE MATCHED FOR UNIFORM LIGHT OUTPUT.
- T-1¾ TYPE PACKAGE.
- LONG LIFE-SOLID STATE RELIABILITY.
- LOW POWER CONSUMPTION I.C. COMPATIBLE.



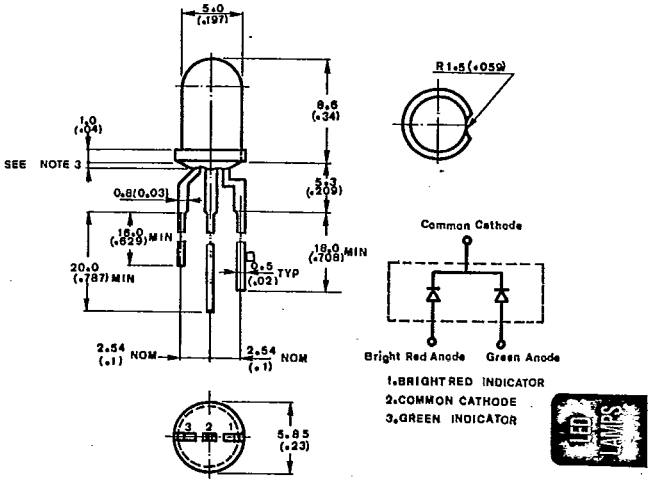
DESCRIPTION

The Bright Red/Green LTL-52RG bicolor Lamp is a white diffused, wide viewing angle, dual chips, utilizing Gallium Phosphide on Gallium Phosphide Red Light Emitting Diode and Gallium Phosphide on Gallium Phosphide Green Light Emitting Diode. The Bright Red and the Green operating independently of each other with a common cathode.

DEVICES

PART NO. LTL–	LENS		SOURCE COLOR
	COLOR	DIFFUSION	
52RG	White	Diffused	Green
			Bright Red

PACKAGE DIMENSIONS



NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25mm (.010") unless otherwise noted.
3. Protruded resin under flange is 1.5mm (.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°C

PARAMETER	BRIGHT RED	GREEN	UNIT
Power Dissipation	40	100	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	60	120	mA
Continuous Forward Current	15	30	mA
Derating Linear From 25°C	0.2	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		

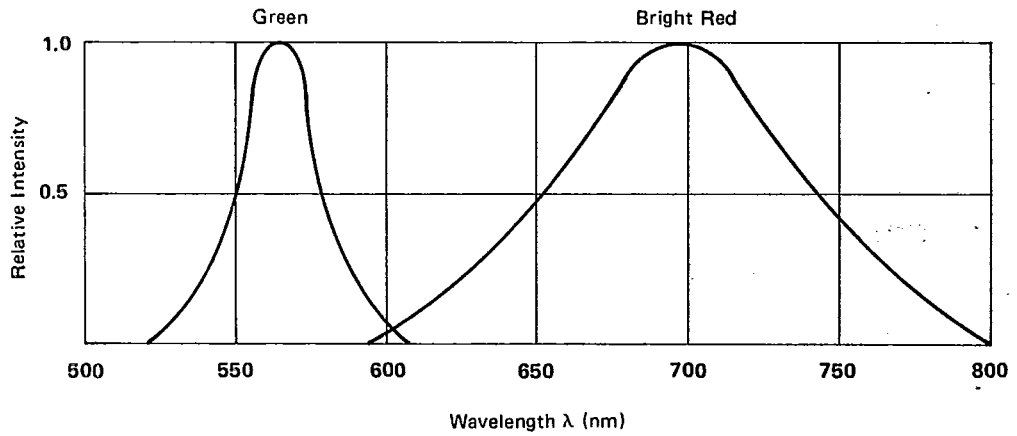


FIG. 1 RELATIVE INTENSITY VS. WAVELENGTH

ELECTRICAL/OPTICAL CHARACTERISTICS AND CURVES AT T_A = 25°C

PARAMETER	SYMBOL	PART NO. LTL-52RG	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Luminous Intensity	Iv	Bright Red Green	0.5 1.5	1.7 5.0		mcd	I_F = 20 mA Note 1
Viewing Angle	2θ½	Bright Red Green		54		deg.	Note 2 (Fig. 6)
Peak Emission Wavelength	λPEAK	Bright Red Green		697 565		nm	Measurement @ Peak (Fig. 1)
Spectral Line Half Width	Δλ	Bright Red Green		90 30		nm	
Forward Voltage	V_F	Bright Red Green		2.1	2.8	V	I_F = 20 mA
Reverse Current	I_R	Bright Red Green			100	μA	V_R = 5V
Capacitance	C	Bright Red Green		55 35		PF	V_F = 0 f = 1 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. θ½ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

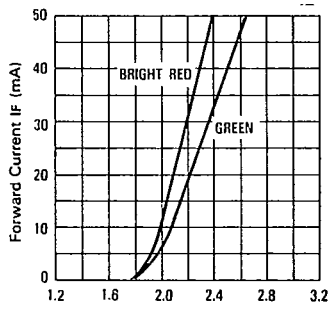


FIG. 2 FORWARD CURRENT VS. FORWARD VOLTAGE

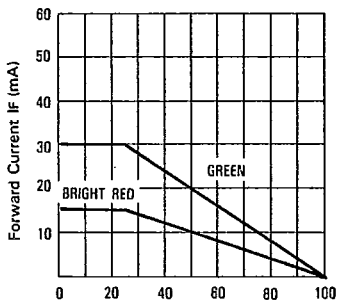


FIG. 3 FORWARD CURRENT DERATING CURVE

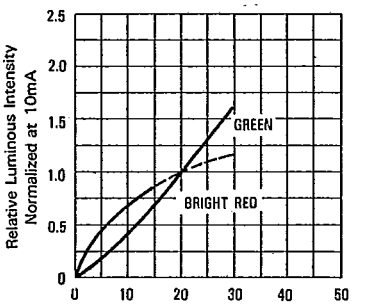


FIG. 7 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

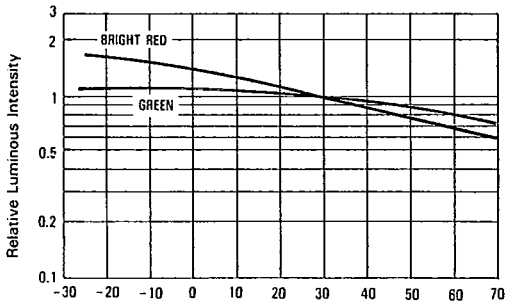


FIG. 5 LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

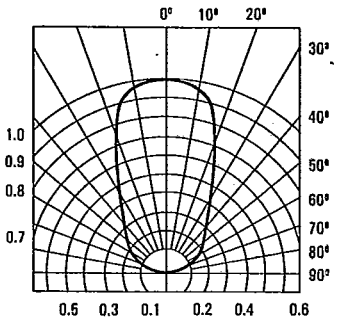


FIG. 6 SPATIAL DISTRIBUTION