

# T-1 ( $\phi$ 3mm) DUAL COLOR INDICATOR LAMP

## MVL-302B1C

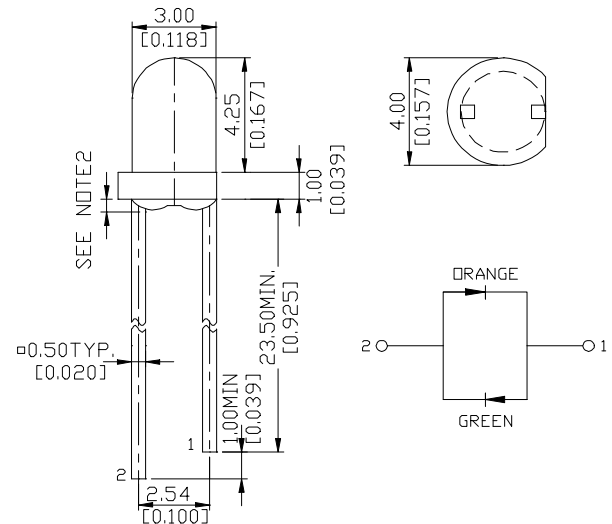
### Description

The MVL-302B1C is a white diffused, wide viewing angle, dual chips, utilizing Gallium Phosphide on Gallium Phosphide green light emitting diode and Gallium Arsenide Phosphide on Gallium Phosphide orange light emitting diode.

The dual chips operating independently of each other.

### Package Dimensions

Unit : mm (inches)



Notes :

1. Tolerance is  $\pm 0.25$  mm (.010") unless otherwise noted.
2. Protruded resin under flange is 0.8 mm (.031") max.
3. Lead spacing is measured where the leads emerge from the package.

### Features

- Green and orange chips are matched for Unifor light output.
- Long life-solid state reliability.
- Low power consumption / I.C. compatible.

### Absolute Maximum Ratings

@  $T_A=25^\circ\text{C}$

Parameter	Symbol	Maximum Rating		Unit
		GREEN	ORANGE	
Power Dissipation	$P_{ad}$	100	100	mW
Peak Forward Current(1/10 Duty Cycle 0.1ms pulse width)	$I_{pf}$	120	120	mA
Continuous Forward Current	$I_{af}$	30	30	mA
Derating Linear From 25°C		0.4	0.5	mA/°C
Reverse Voltage	$V_R$	5	5	V
Operating Temperature Range	$T_{opr}$	-55°C to +100°C		
Storage Temperature Range	$T_{stg}$	-55°C to +100°C		
Lead Soldering Temperature (1.6 mm from body) for 3 seconds at 260°C				

## Optical-Electrical Characteristics

@ T<sub>A</sub>=25°C

Parameter	Test Conditions	Symbol		Min .	Typ .	Max .	Unit .
Luminous Intensity	I <sub>F</sub> =20mA	I <sub>V</sub>	GREEN/ORANGE	2.5/2.5	10/10	-	mcd
Forward Voltage	I <sub>F</sub> =20mA	V <sub>F</sub>	GREEN/ORANGE	-	2.1/1.9	2.8/2.6	V
Reverse Current	V <sub>R</sub> =5V	I <sub>R</sub>	GREEN/ORANGE	-	-	100	μA
Peak Emission Wavelength	I <sub>F</sub> =20mA	λ <sub>p</sub>	GREEN/ORANGE	-	568/640	-	nm
Spectral Line Half Width	I <sub>F</sub> =20mA	Δλ	GREEN/ORANGE	-	30/40	-	nm
Viewing Angle	I <sub>F</sub> =20mA	2θ <sub>1/2</sub>	GREEN/ORANGE	-	140	-	deg.

## Typical Optical-Electrical Characteristic Curves

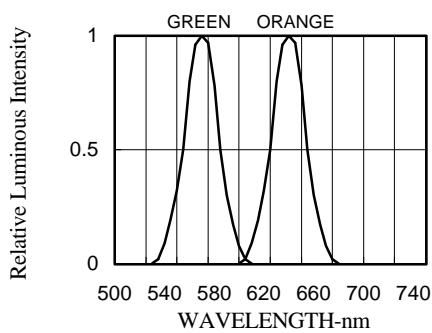


FIG.1 RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH

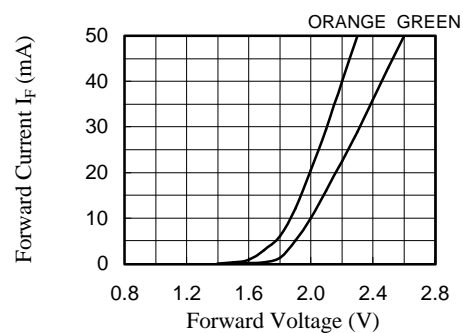


FIG.2 FORWARD CURRENT VS. FORWARD VOLTAGE

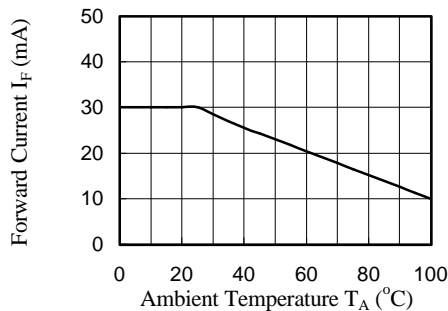


FIG.3 FORWARD CURRENT VS. AMBIENT TEMPERATURE

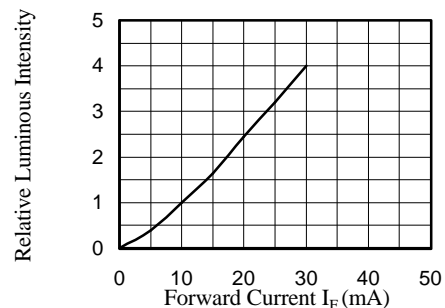


FIG.4 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

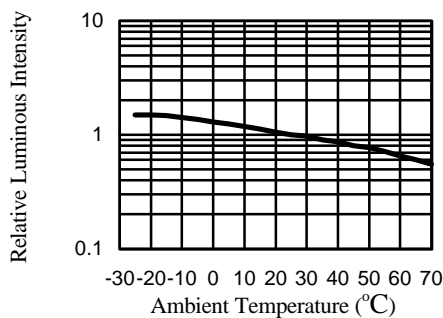


Fig 5. RELATIVE LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

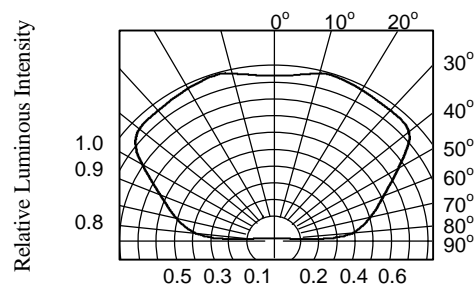


FIG.6 RADIATION DIAGRAM