T-1 3/4 (ƒ 5mm) BI-COLOR
SOLID STATE LAMP

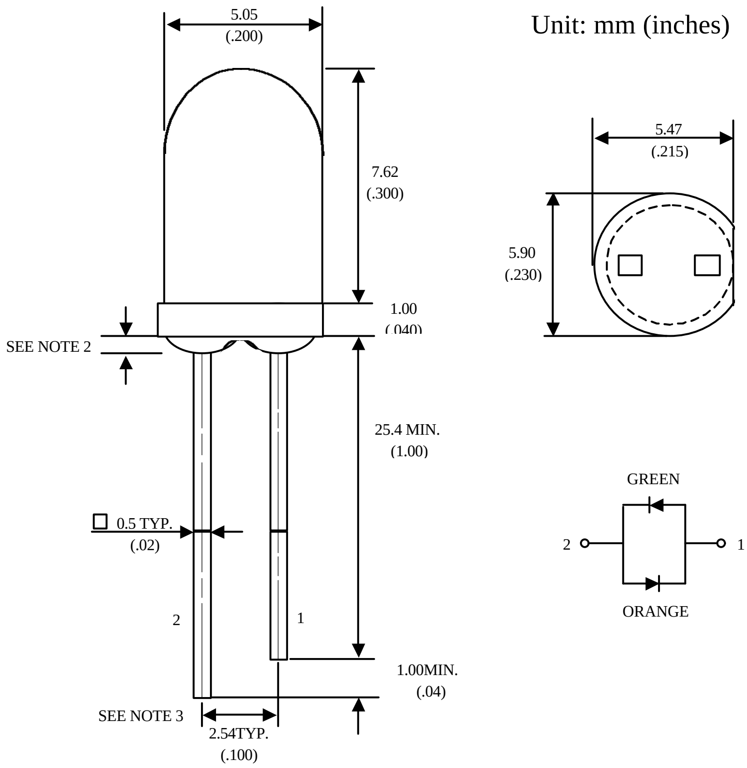
MVL-502B1C

Description

The MVL-502B1C 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



Notes :
1. Tolerance is ±0.25 mm (.010") unless otherwise noted.
2. Protruded resin under flange is 1.5 mm (.059") max.
3. Lead spacing is measured where the leads emerge from the package.

Features

- Dual chips : green and orange
- Standard T-1 3/4 (ϕ 5mm) package
- Low power consumption
- High efficiency
- Reliable

Absolute Maximum Ratings

@ T_A=25℃

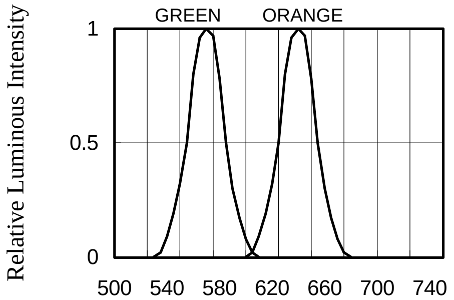
Parameter	Symbol	Maximum Rating		Unit
		GREEN	ORANGE	
Power Dissipation	P_{ad}	100	100	mW
Peak Forward Current(1/10 Duty Cycle 0.1ms pulse width)	I_{pf}	120	120	mA
Continuous Forward Current	I_{af}	30	30	mA
Derating Linear From 25℃		0.4	0.5	mA/℃
Reverse Voltage	V_R	5	5	V
Operating Temperature Range	T_{opr}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

Optical-Electrical Characteristics

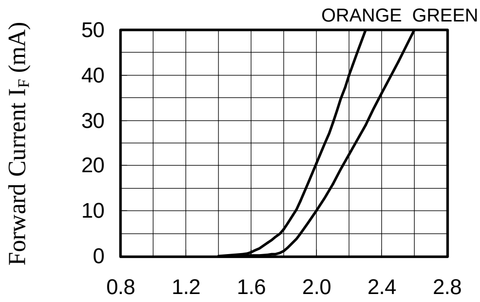
@ T_A=25℃

Parameter	Test Conditions	Symbol		Min .	Typ .	Max .	Unit .
Luminous Intensity	I_F=20mA	I_V	GREEN/ORANGE	-	15/20	-	mcd
Forward Voltage	I_F=20mA	V_F	GREEN/ORANGE	-	2.1/2.0	2.8/2.8	V
Reverse Current	V_R=5V	I_R	GREEN/ORANGE	-	-	100/100	μA
Peak Emission Wavelength	I_F=20mA	λ_p	GREEN/ORANGE	-	568/640	-	nm
Spectral Line Half Width	I_F=20mA	$\Delta\lambda$	GREEN/ORANGE	-	60/60	-	nm
Viewing Angle	I_F=20mA	$2\theta_{1/2}$	GREEN/ORANGE	-	100	-	deg.

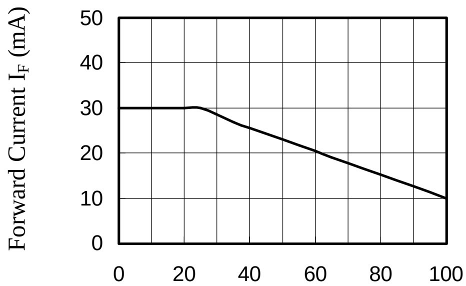
Typical Optical-Electrical Characteristic Curves



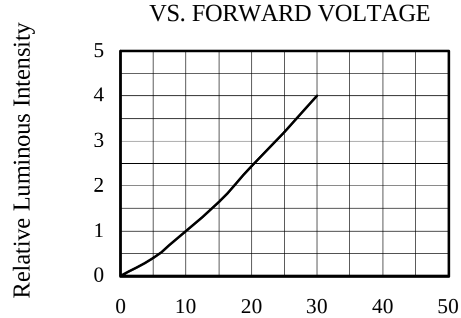
WAVELENGTH-nm
FIG.1 RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH



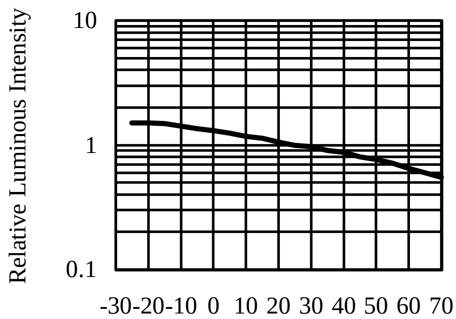
Forward Voltage (V)
FIG.2 FORWARD CURRENT VS. FORWARD VOLTAGE



Ambient Temperature T_A (℃)
FIG.3 FORWARD CURRENT VS. AMBIENT TEMPERATURE



Forward Current I_F (mA)
FIG.4 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



Ambient Temperature (^{o}C)
Fig 5. RELATIVE LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

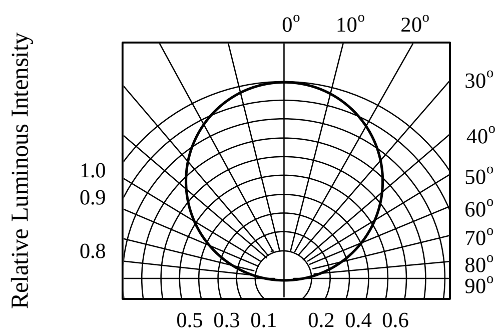


FIG.6 RADIATION DIAGRAM