

MVL-301G
MVL-301Y
MVL-301HR
MVL-301DR
MVL-301UR

Description

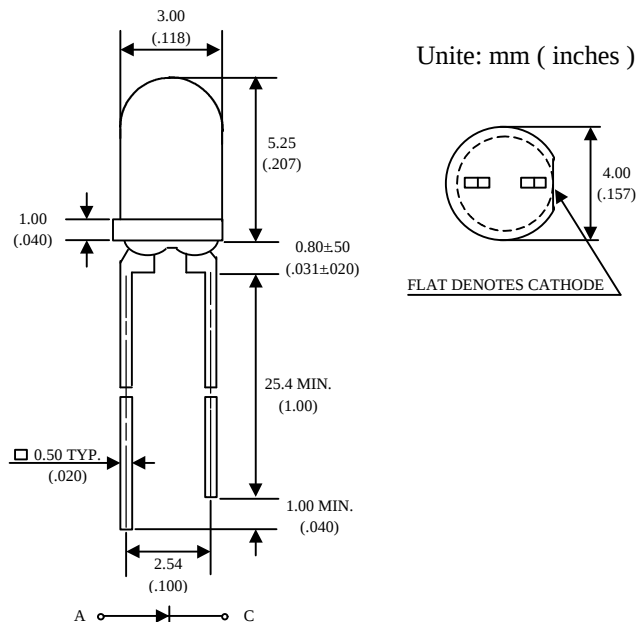
The MVL-301xx series package are T-1 ($\phi 3\text{mm}$) standard color diffused plastic lens package. The Hi-EFF red (HR) and yellow LED chips are made with Gallium Arsenide Phosphide on Gallium Phosphide diode. The green LED chip is made with Gallium Phosphide on Gallium Phosphide diode. The red (DR) chip is made with Aluminum Gallium Arsenide on Gallium Arsenide diode. The red (UR) chip is made with Aluminum Gallium Arsenide on Aluminum Gallium Arsenide diode.

Applications

- Popular T-1 ($\phi 3\text{mm}$) diameter package
- Selected minimum intensities
- General purpose leads
- Reliable and rugged

Absolute Maximum Tatings

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.

[illegible]

Optical -Electrical Characteristics

Part No. : MVL-301G

@T_A=25°C

Parameter	Test Conditions	Symbol	Min .	Typ .	Max .	Unit .
Luminous Intensity	I _F =10mA	I _V	3.0	10	-	mcd
Forward Voltage	I _F =20mA	V _F	-	2.1	2.8	V
Reverse Current	V _R =5V	I _R	-	-	100	μA
Wavelength	I _F =20mA	λ _p	-	565	-	nm
Spectral Line Half Width	I _F =20mA	Δλ	-	30	-	nm
Viewing Angle	I _F =20mA	2θ _{1/2}	-	40	-	deg

Part No. : MVL-301Y

@T_A=25°C

Parameter	Test Conditions	Symbol	Min .	Typ .	Max .	Unit .
Luminous Intensity	I _F =10mA	I _V	2.5	9.0	-	mcd
Forward Voltage	I _F =20mA	V _F	-	2.1	2.8	V
Reverse Current	V _R =5V	I _R	-	-	100	μA
Wavelength	I _F =20mA	λ _p	-	585	-	nm
Spectral Line Half Width	I _F =20mA	Δλ	-	35	-	nm
Viewing Angle	I _F =20mA	2θ _{1/2}	-	40	-	deg

Part No. : MVL-301HR

@T_A=25°C

Parameter	Test Conditions	Symbol	Min .	Typ .	Max .	Unit .
Luminous Intensity	I _F =10mA	I _V	2.5	9.0	-	mcd
Forward Voltage	I _F =20mA	V _F	-	2.0	2.8	V
Reverse Current	V _R =5V	I _R	-	-	100	μA
Wavelength	I _F =20mA	λ _p	-	640	-	nm
Spectral Line Half Width	I _F =20mA	Δλ	-	40	-	nm
Viewing Angle	I _F =20mA	2θ _{1/2}	-	40	-	deg

Part No. : MVL-301DR

@T_A=25°C

Parameter	Test Conditions	Symbol	Min .	Typ .	Max .	Unit .
Luminous Intensity	I _F =20mA	I _V	10	40	-	mcd
Forward Voltage	I _F =20mA	V _F	-	1.8	2.4	V
Reverse Current	V _R =5V	I _R	-	-	100	μA
Wavelength	I _F =20mA	λ _p	-	660	-	nm
Spectral Line Half Width	I _F =20mA	Δλ	-	20	-	nm
Viewing Angle	I _F =20mA	2θ _{1/2}	-	40	-	deg

Part No. : MVL-301UR

@T_A=25°C

Parameter	Test Conditions	Symbol	Min .	Typ .	Max .	Unit .
Luminous Intensity	I _F =20mA	I _V	20	80	-	mcd
Forward Voltage	I _F =20mA	V _F	-	1.8	2.4	V
Reverse Current	V _R =5V	I _R	-	-	100	μA
Wavelength	I _F =20mA	λ _p	-	660	-	nm
Spectral Line Half Width	I _F =20mA	Δλ	-	20	-	nm
Viewing Angle	I _F =20mA	2θ _{1/2}	-	40	-	deg

Typical Optical-Electrical Characteristic Curves

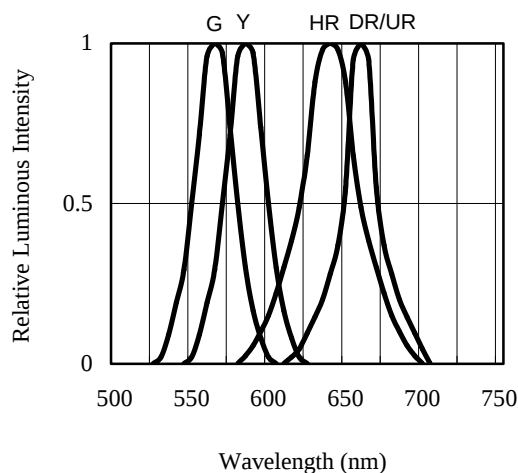


Fig 1. RELATIVE LUMINOUS INTENSITY
VS. WAVELENGTH

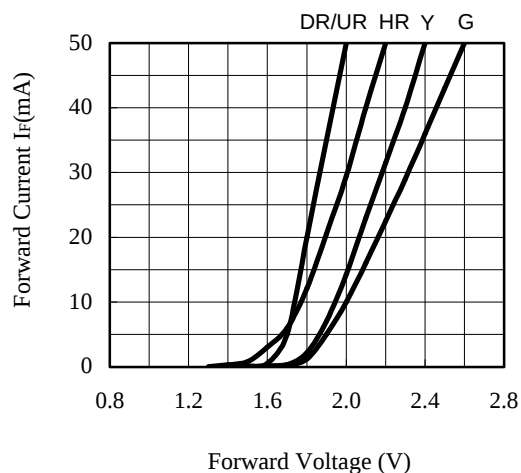


Fig 2. FORWARD CURRENT
VS. FORWARD VOLTAGE

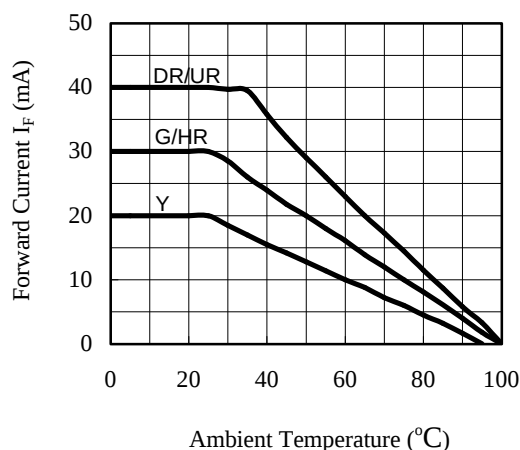


Fig 3. FORWARD CURRENT
VS. AMBIENT TEMPERATURE

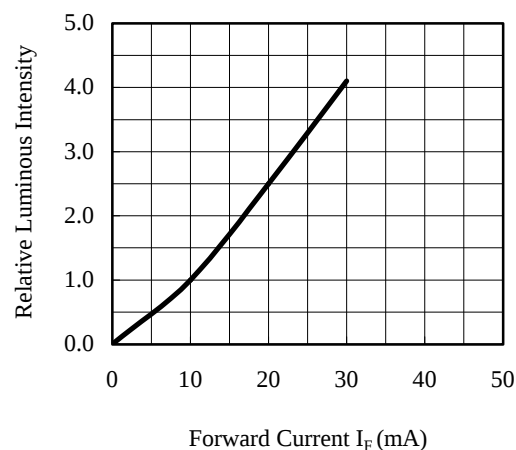


Fig 4. RELATIVE LUMINOUS INTENSITY
VS. FORWARD CURRENT

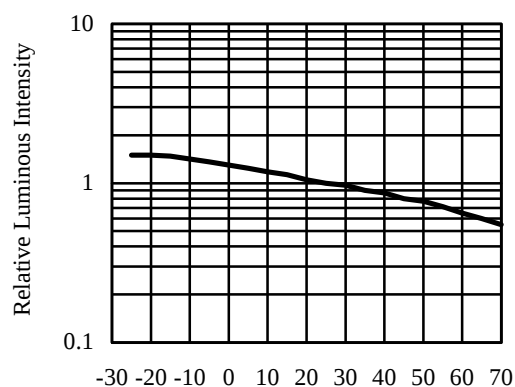


Fig 5. RELATIVE LUMINOUS INTENSITY
VS. AMBIENT TEMPERATURE

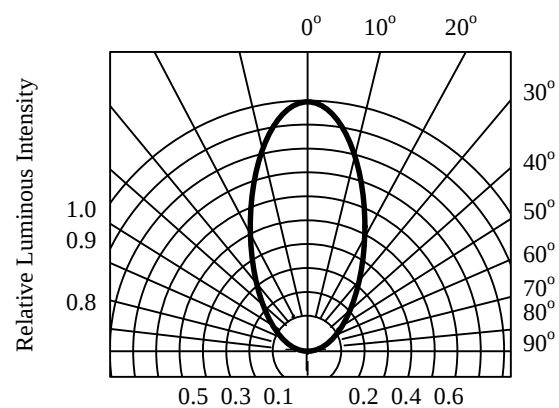


Fig 6. RADIATION DIAGRAM