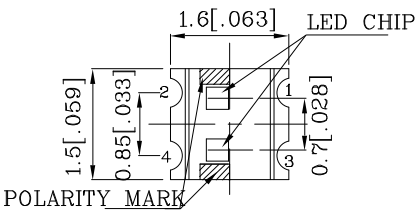
SunLED
www.SunLEDusa.com

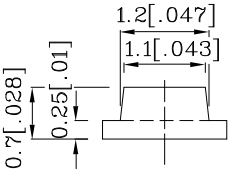
Part Number: **XZMDKVG59W-1**

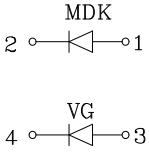
1.6x1.5mm BI-COLOR SMD CHIP LED LAMP

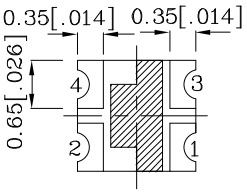
Features

- 1.6mmx1.5mm SMT LED, 0.7mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 2000PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.









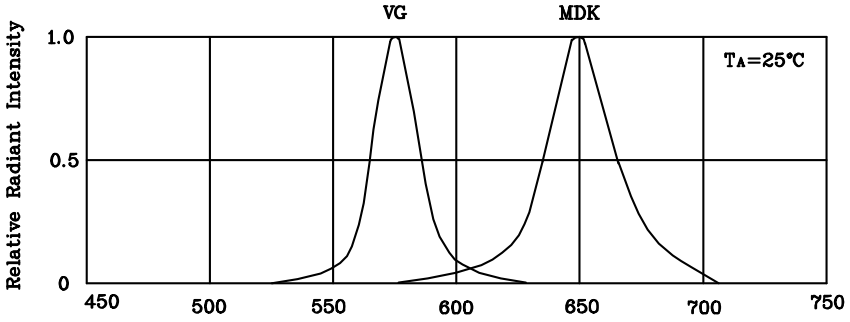
Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.2(0.008") unless otherwise noted.
3.Specifications are subject to change without notice.

Absolute Maximum Ratings (T_A=25°C)		**MDK (InGaAlP)**	**VG (InGaAlP)**	**Unit**
Reverse Voltage	V_R	5	5	V
Forward Current	I_F	30	30	mA
Forward Current (Peak) 1/10Duty Cycle 0.1ms Pulse Width	i_{FS}	185	150	mA
Power Dissipation	P_T	75	75	mW
Operating Temperature	T_A	-40 ~ +85		°C
Storage Temperature	Tstg	-40 ~ +85		

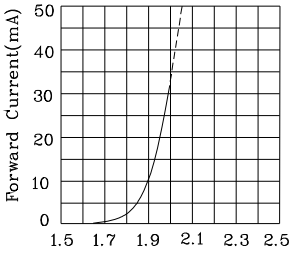
Operating Characteristics (T_A=25°C)		**MDK (InGaAlP)**	**VG (InGaAlP)**	**Unit**
Forward Voltage (Typ.) (I_F=20mA)	V_F	1.95	2.1	V
Forward Voltage (Max.) (I_F=20mA)	V_F	2.5	2.5	V
Reverse Current (Max.) (V_R=5V)	I_R	10	10	uA
Wavelength of Peak Emission (Typ.) (I_F=20mA)	λ P	650	574	nm
Wavelength of Dominant Emission (Typ.) (I_F=20mA)	λ D	635	570	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I_F=20mA)	Δλ	28	20	nm
Capacitance (Typ.) (V_F=0V, f=1MHz)	C	35	15	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=20mA) mcd min.	Luminous Intensity (IF=20mA) mcd typ.	Wavelength nm λ P	Viewing Angle 2 θ 1/2
XZMDKVG59W-1	Red	InGaAlP	Water Clear	70	148	650	120°
	Green	InGaAlP		18	49	574	

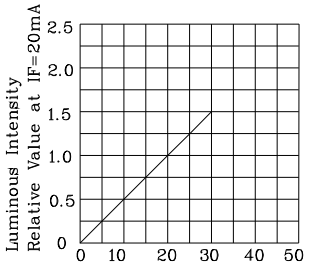


RELATIVE INTENSITY Vs. WAVELENGTH

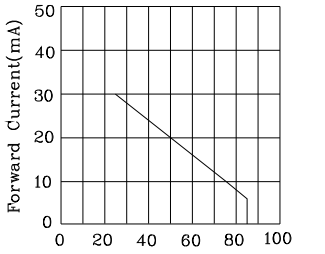
❖ **MDK**



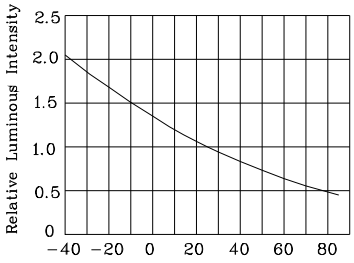
FORWARD CURRENT Vs.
FORWARD VOLTAGE



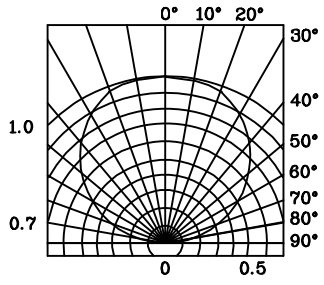
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE

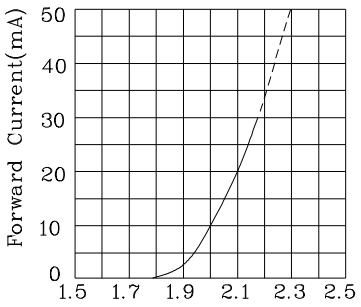


LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

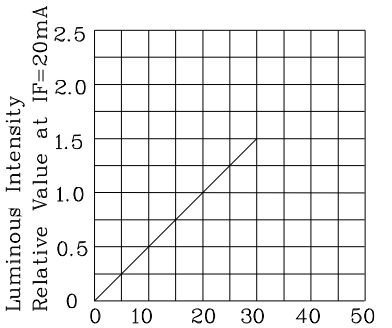


SPATIAL DISTRIBUTION

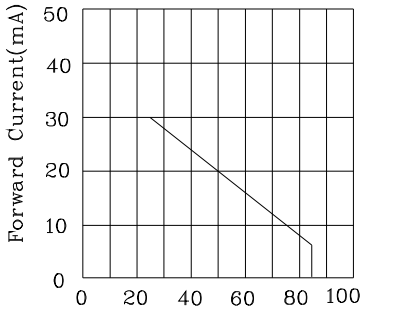
❖ **VG**



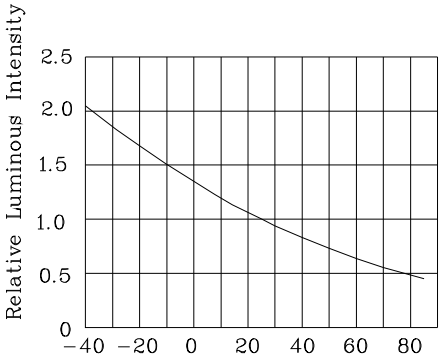
FORWARD CURRENT Vs.
FORWARD VOLTAGE



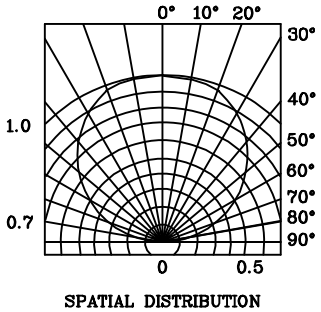
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE

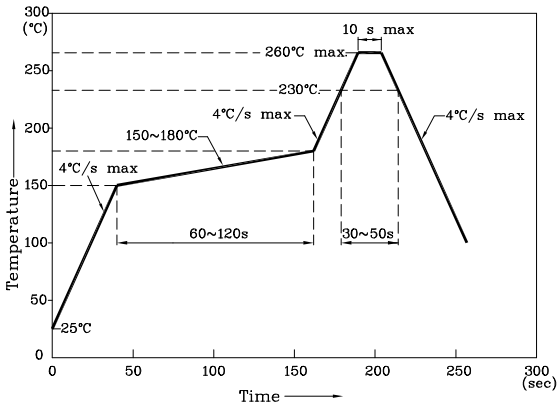


LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

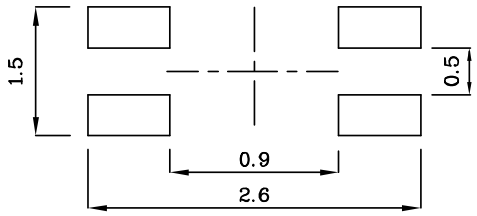
Reflow Soldering Profile For Lead-free SMT Process.



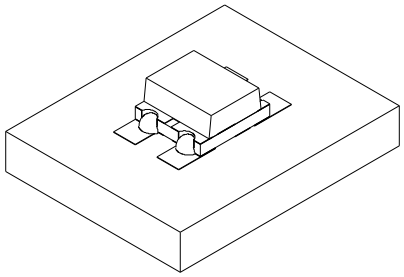
NOTES:

1. Maximum soldering temperature should not exceed 260°c.
2. Recommended reflow temperature: 145°c-260°c.
3. Do not put stress to the epoxy resin during high temperatures conditions.

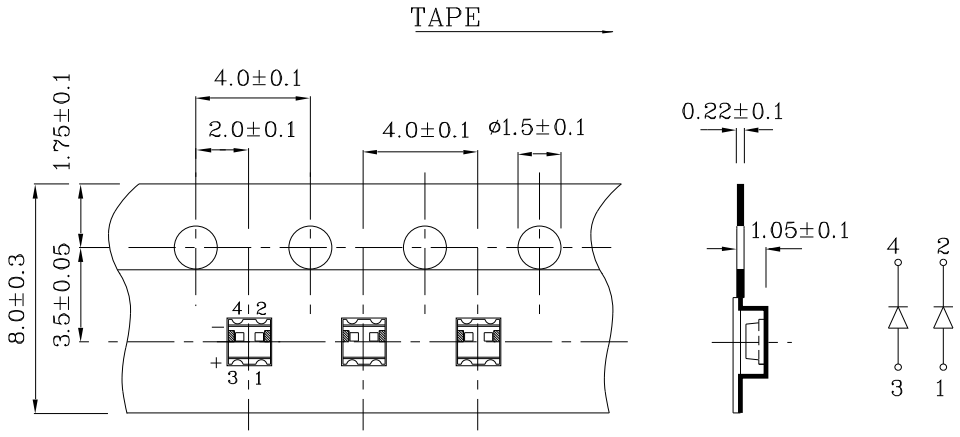
❖ Recommended Soldering Pattern (Units : mm; Tolerance: ±0.1)



❖ The device has a single mounting surface. The device must be mounted according to the specifications.



❖ Tape Specification (Units : mm)



Remarks:

If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm
2. Luminous Intensity / Luminous Flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

PACKING & LABEL SPECIFICATIONS **XZMDKVG59W-1**