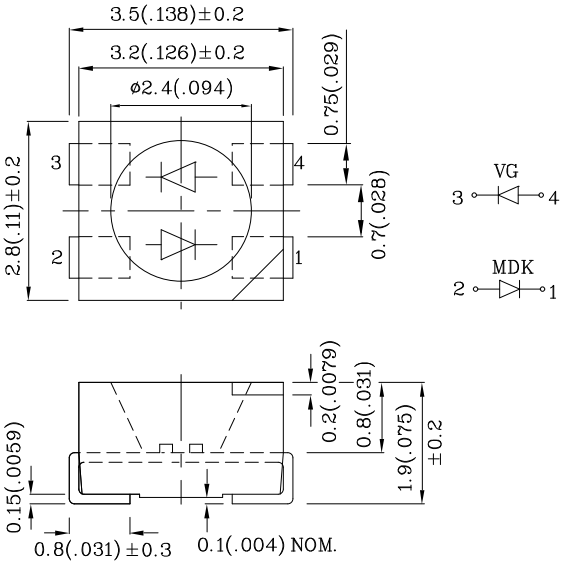
SunLED
www.SunLED.com

Part Number: **ZMDKVG45W**

3.5x2.8mm PLCC4 SMD LED

Features

- BOTH CHIPS CAN BE CONTROLLED SEPARATELY.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- AVAILABLE ON TAPE AND REEL.
- PACKAGE: 1500PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 4.
- RoHS COMPLIANT.



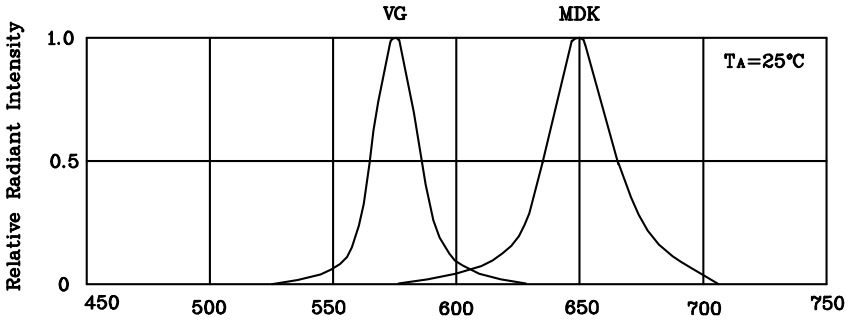
Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25(0.01") 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		

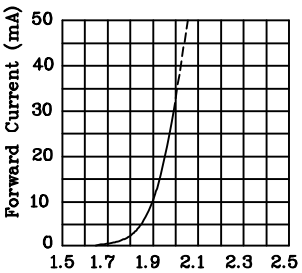
Operating Characteristics (T_A=25°C)		**MDK (InGaAlP)**	**VG (InGaAlP)**	**Unit**
Forward Voltage (Typ.) (I_F=20mA)	V_F	1.95	2.1	V
Forward Voltage (Max.) (I_F=20mA)	V_F	2.5	2.5	V
Reverse Current (Max.) (V_R=5V)	I_R	10	10	uA
Wavelength Of Peak Emission (Typ.) (IF=20mA)	λ P	650	574	nm
Wavelength Of Dominant Emission (Typ.) (IF=20mA)	λ D	635	570	nm
Spectral Line Full Width At Half-Maximum (Typ.) (IF=20mA)	Δλ	28	20	nm
Capacitance (Typ.) (VF=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
ZMDKVG45W	Red	InGaAlP	Water Clear	70	198	650	120°
	Green	InGaAlP		18	79	574	

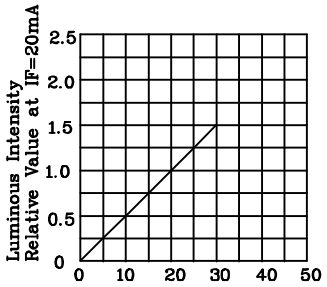


RELATIVE INTENSITY Vs. WAVELENGTH

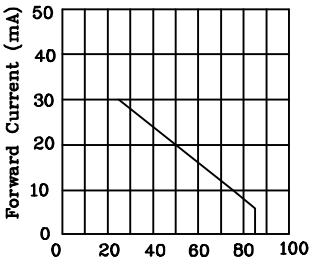
❖ **MDK**



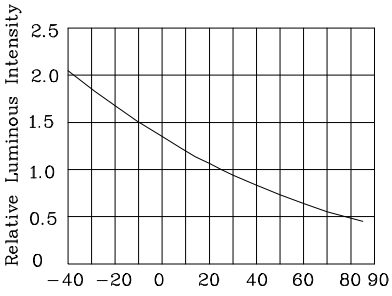
FORWARD CURRENT Vs.
FORWARD VOLTAGE



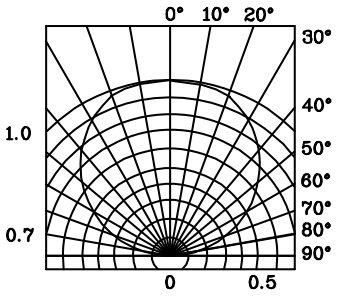
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE

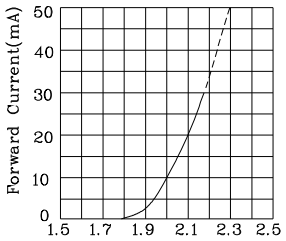


LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

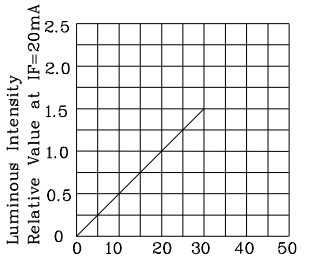


SPATIAL DISTRIBUTION

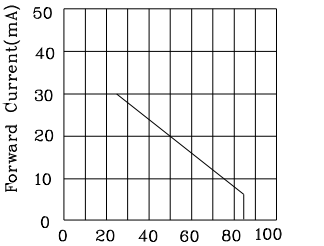
❖ VG



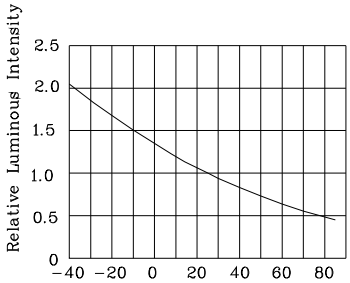
FORWARD CURRENT Vs.
FORWARD VOLTAGE



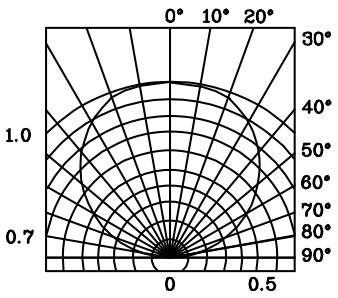
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE

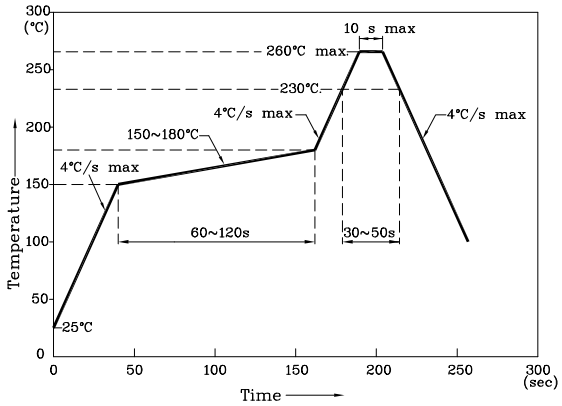


LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

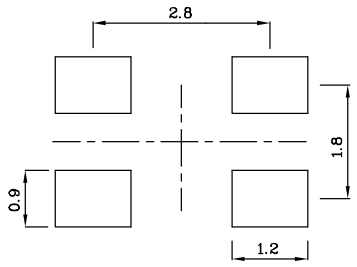
Reflow Soldering Profile For Lead-free SMT Process.



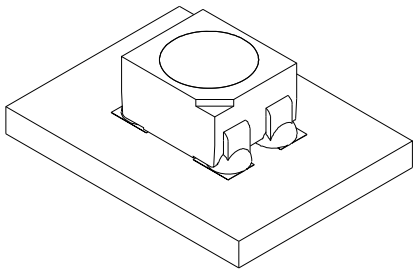
NOTES:

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.

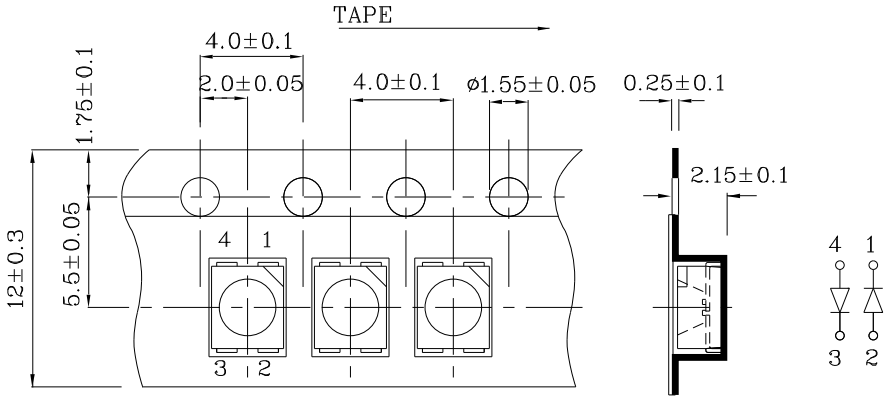
❖ Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



❖ 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 ZMDKVG45W

