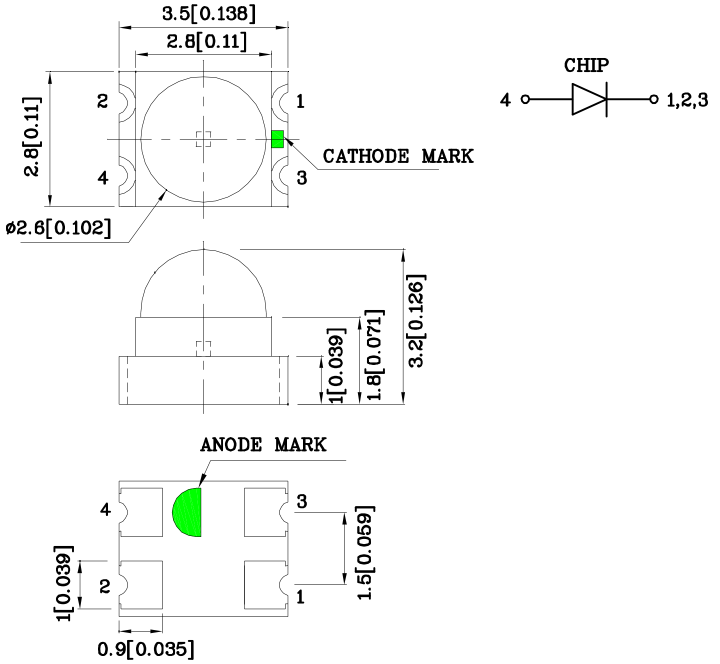
Part Number: XZMDK45W50MAV-6

3.5 x2.8mm SMD CHIP LED LAMP

Features

- Ideal for indication light on hand held products
- Long life and robust package
- Variety of lens types and color choices available
- Package: 500pcs / reel
- Moisture sensitivity level : level 3
- RoHS compliant

Package Schematics

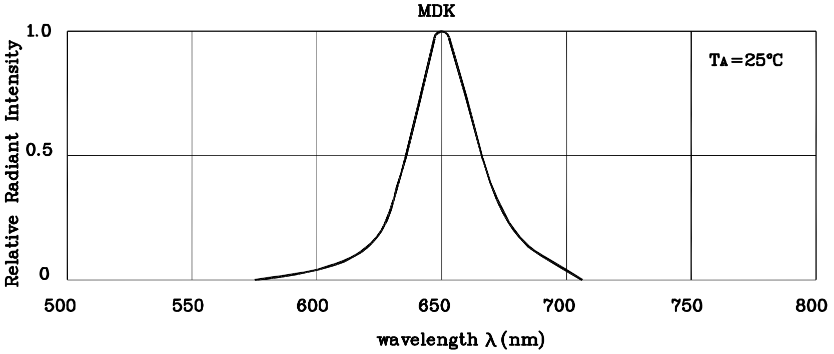


Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.2(0.008") unless otherwise noted.
3. Specifications are subject to change without notice.

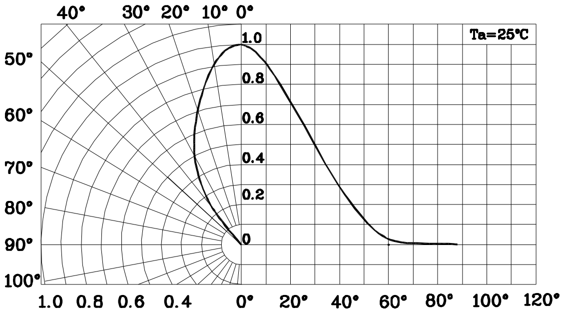
Absolute Maximum Ratings (T_A=25°C)		**MDK (AlGaInP)**	**Unit**
Reverse Voltage	V_R	5	V
Forward Current	I_F	50	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i_{FS}	185	mA
Power Dissipation	P_D	130	mW
Operating Temperature	T_A	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +85	

Operating Characteristics (T_A=25°C)		**MDK (AlGaInP)**	**Unit**
Forward Voltage (Typ.) (I_F=50mA)	V_F	2.1	V
Forward Voltage (Max.) (I_F=50mA)	V_F	2.6	V
Reverse Current (Max.) (V_R=5V)	I_R	10	uA
Wavelength of Peak Emission (Typ.) (I_F=50mA)	λP	650	nm
Wavelength of Dominant Emission (Typ.) (I_F=50mA)	λD	630	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I_F=50mA)	△λ	28	nm
Capacitance (Typ.) (V_F=0V, f=1MHz)	C	35	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (I_F=50mA) mcd		Wavelength nm λP	Viewing Angle 2θ 1/2
				min.	typ.		
XZMDK45W50MAV-6	Red	AlGaInP	Water Clear	1200	1890	650	60°

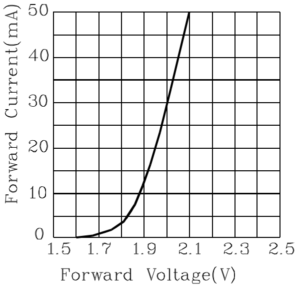


RELATIVE INTENSITY Vs. WAVELENGTH

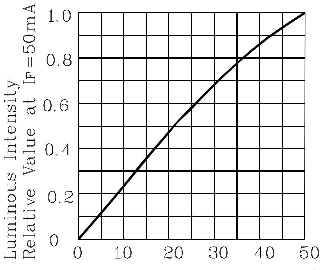


SPATIAL DISTRBUTION

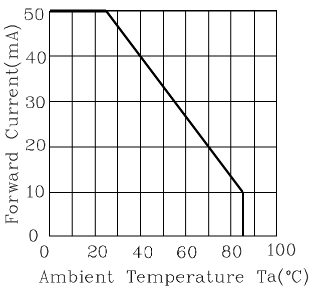
❖ MDK



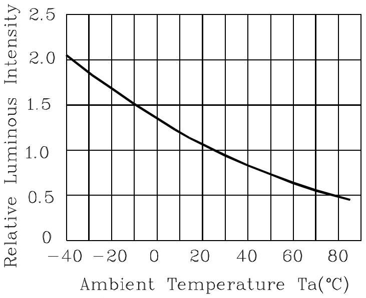
FORWARD CURRENT Vs.
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT



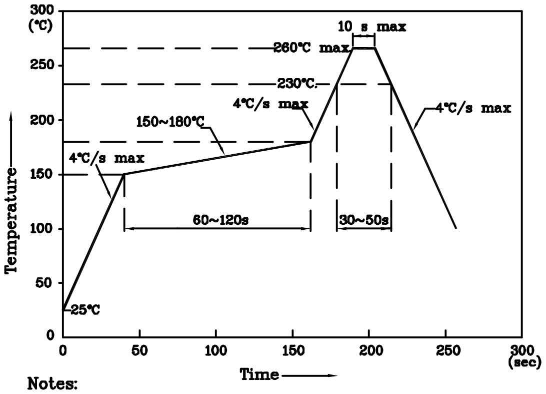
FORWARD CURRENT
DERATING CURVE



LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

LED is recommended for reflow soldering and soldering profile is shown below.

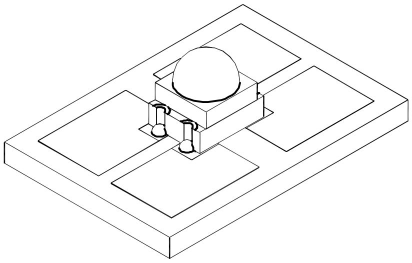
Reflow Soldering Profile for SMD Products (Pb-Free Components)



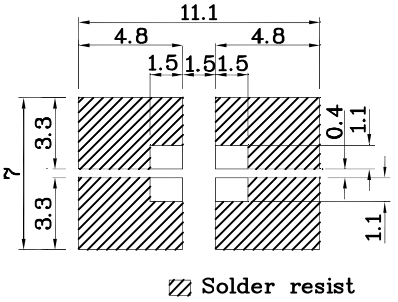
Notes:

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

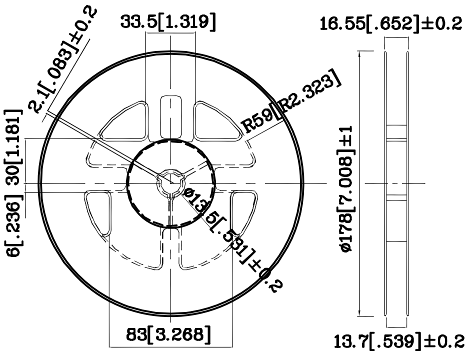
❖ The device has a single mounting surface. The device must be mounted according to the specifications.



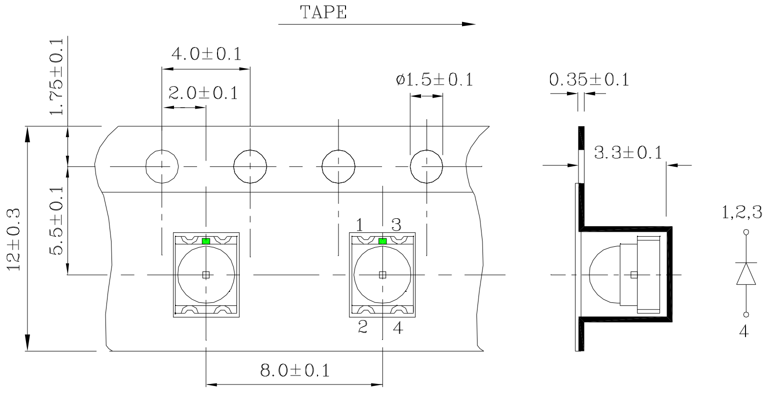
❖ Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



❖ Reel Dimension



❖ Tape Specification (Units : mm)



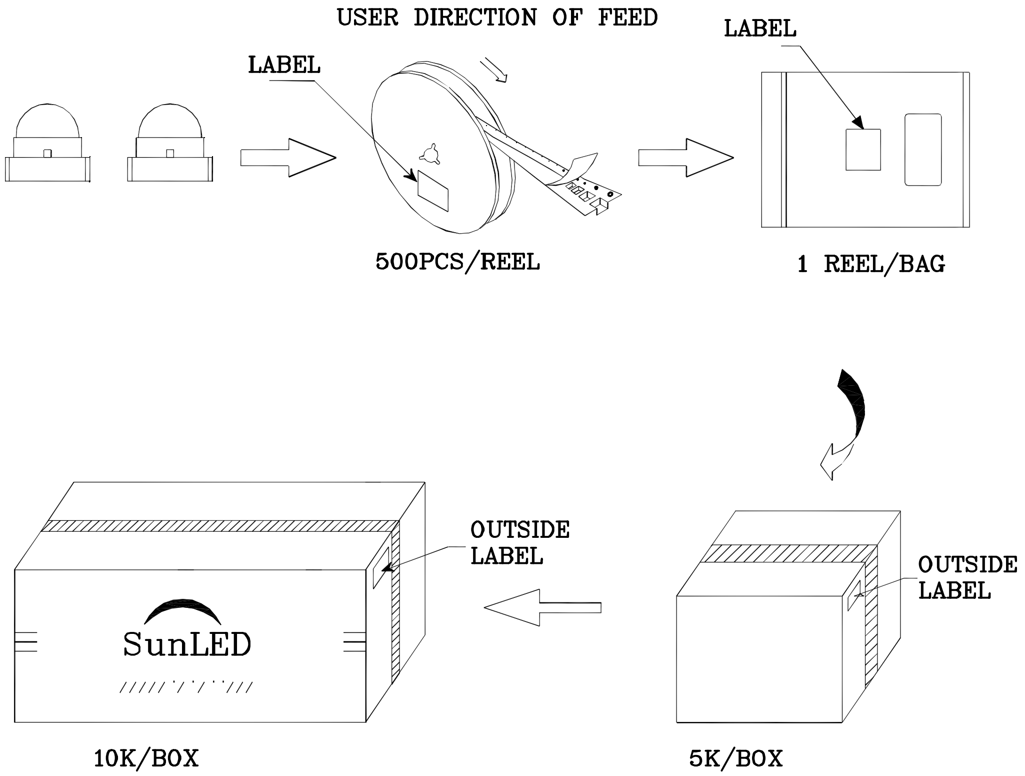
Remarks:

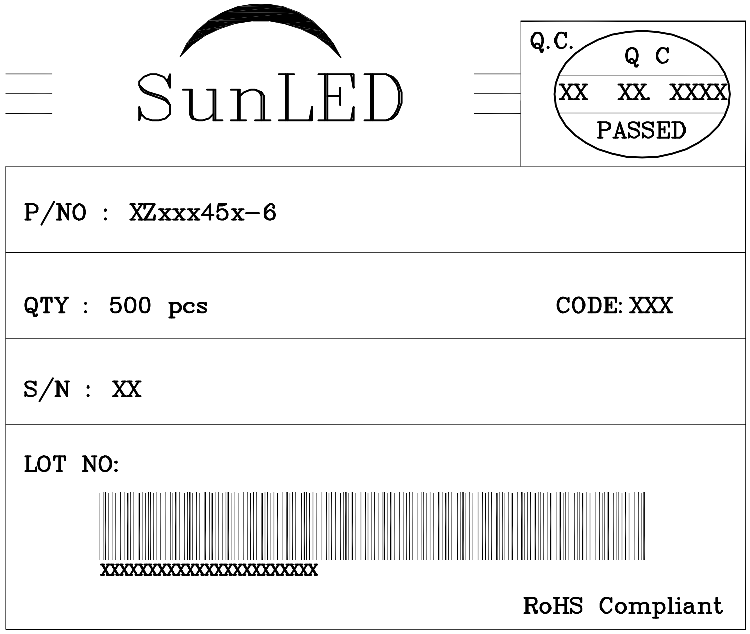
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

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




SunLED

Q.C.
Q C
XX XX XXXX
PASSED

P/NO : XZxxx45x-6

QTY : 500 pcs CODE: XXX

S/N : XX

LOT NO:

XXXXXXXXXXXXXXXXXXXXXXX

RoHS Compliant