

Part Number: ZM2CR45W-2
3.5x2.8mm SMD CHIP LED LAMP

PRELIMINARY SPEC

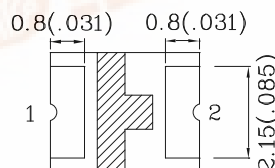
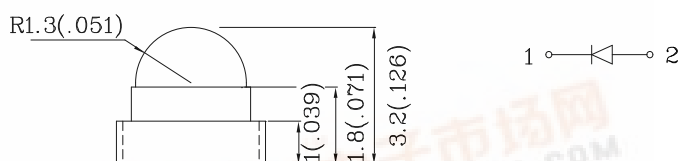
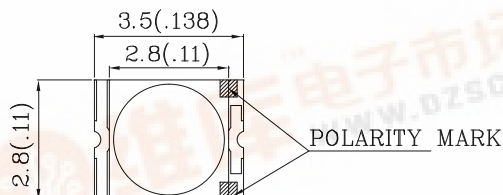
Features

- SINGLE COLOR.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- IDEAL FOR BACKLIGHTING.
- AVAILABLE ON TAPE AND REEL.
- PACKAGE : 500PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.



Notes:

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

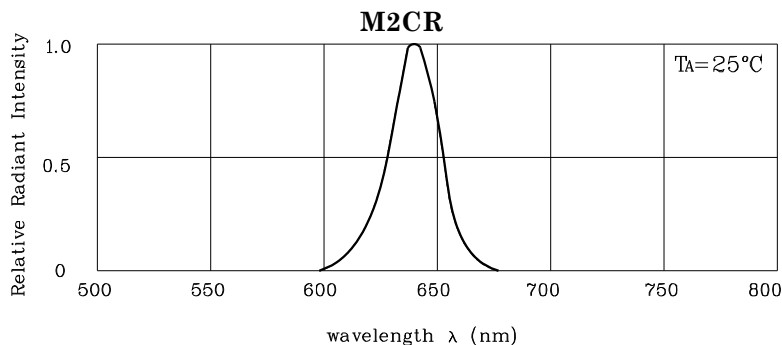


Absolute Maximum Ratings (TA=25°C)		M2CR (AlInGaP)	Unit
Reverse Voltage	VR	5	V
Forward Current	IF	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	iFS	150	mA
Power Dissipation	PT	84	mW
Operating Temperature	TA	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +85	

Operating Characteristics (TA=25°C)		M2CR (AlInGaP)	Unit
Forward Voltage (Typ.) (IF=20mA)	VF	2.2	V
Forward Voltage (Max.) (IF=20mA)	VF	2.8	V
Reverse Current (Max.) (VR=5V)	IR	10	uA
Wavelength of Peak Emission (Typ.) (IF=20mA)	λ P	640	nm
Wavelength of Dominant Emission (Typ.) (IF=20mA)	λ D	630	nm
Spectral Line Full Width At Half-Maximum (Typ.) (IF=20mA)	Δλ	25	nm
Capacitance (Typ.) (VF=0V, f=1MHz)	C	27	pF

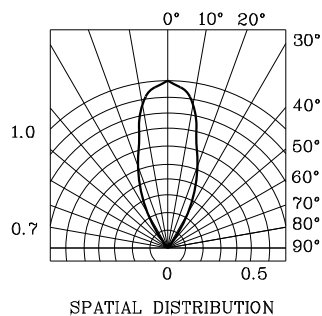
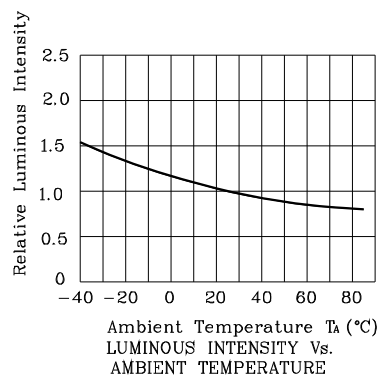
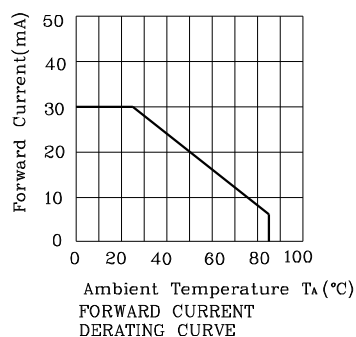
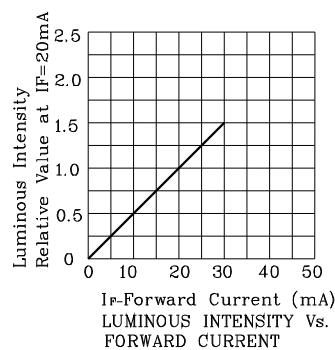
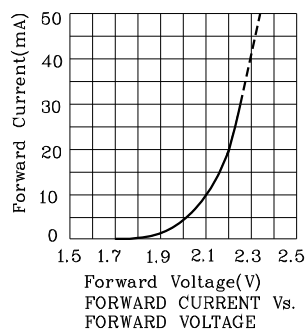
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=20mA) mcd	Wavelength nm λ P	Viewing Angle 2 θ 1/2	
				min.	typ.		
ZM2CR45W-2	Red	AlInGaP	Water Clear	2200	3790	640	40°



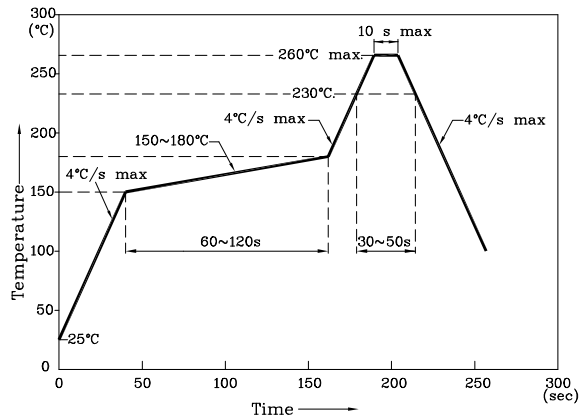


RELATIVE INTENSITY Vs. WAVELENGTH

❖ **M2CR**



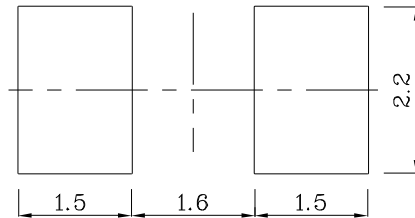
Reflow Soldering Profile For Lead-free SMT Process.



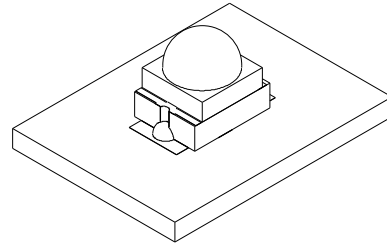
NOTES:

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.

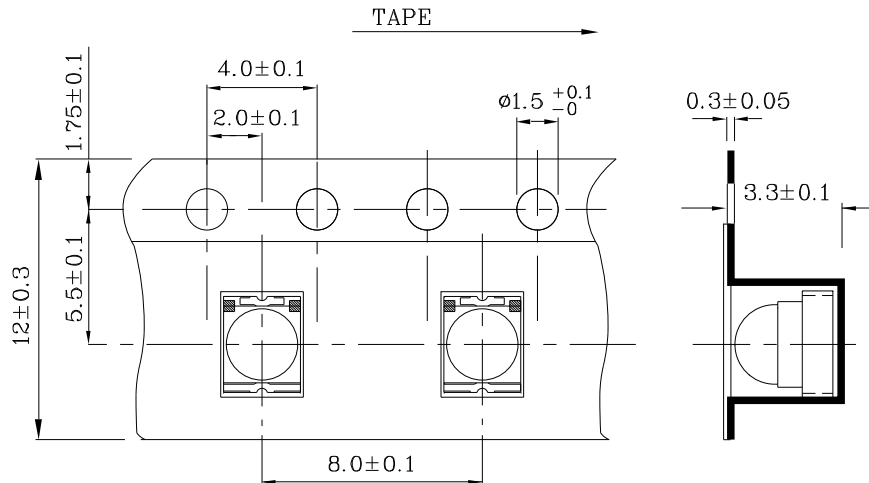
❖ **Recommended Solering Pattern**
(Units : mm; Tolerance:± 0.1)



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



❖ **Tape Specification (Units : mm)**



Remarks:

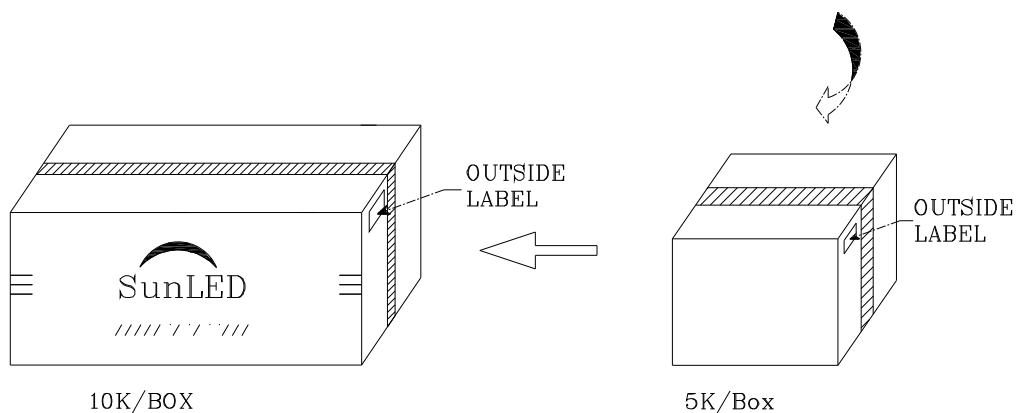
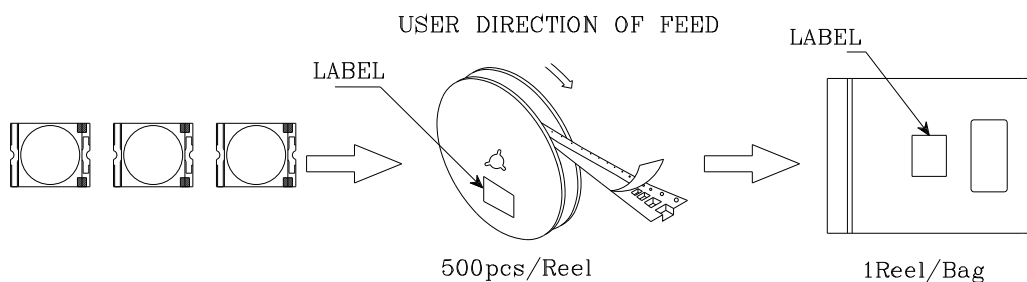
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

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

ZM2CR45W-2



SunLED

Q.C. Q C XX XX XXXX PASSED	
P/NO : Zxx45x-2	
QTY : 500 pcs	CODE: XXX
S/N : XX	
LOT NO:  XXXXXXXXXXXXXXXXXXXX	
RoHS Compliant	