

PRELIMINARY SPEC

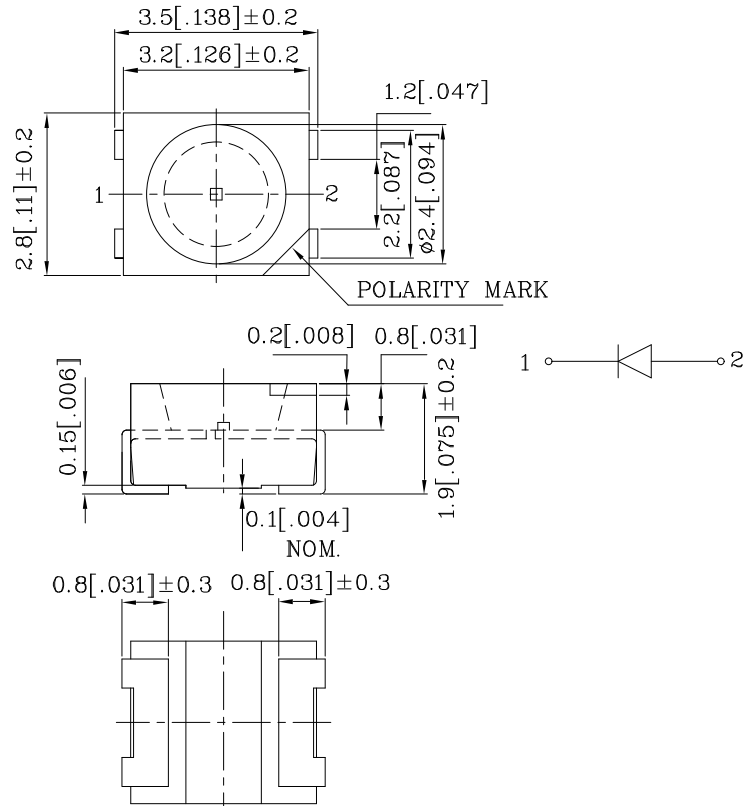
Features

- SINGLE COLOR.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- AVAILABLE ON TAPE AND REEL.
- IDEAL FOR BACKLIGHTING.
- PACKAGE : 1500PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 4.
- RoHS COMPLIANT.



Notes:

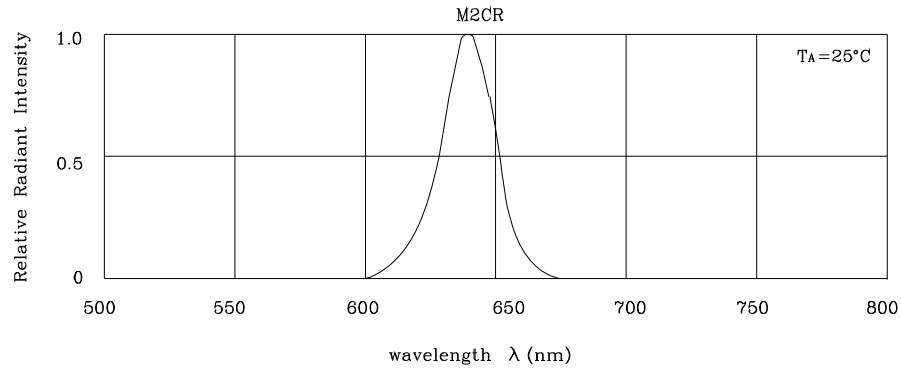
1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01")$ unless otherwise noted.
3. Specifications are subject to change without notice.



Absolute Maximum Ratings (TA=25°C)		M2CR (AlInGaP)	Unit
Reverse Voltage	VR	5	V
Forward Current	IF	50	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	iFS	150	mA
Power Dissipation	PT	140	mW
Operating Temperature	TA	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +85	

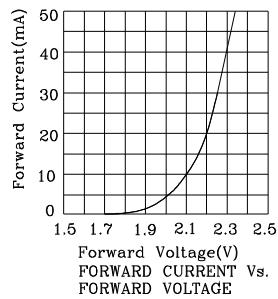
Operating Characteristics (TA=25°C)		M2CR (AlInGaP)	Unit
Forward Voltage (Typ.) (IF=20mA)	VF	2.2	V
Forward Voltage (Max.) (IF=20mA)	VF	2.8	V
Reverse Current (Max.) (VR=5V)	IR	10	uA
Wavelength of Peak Emission (Typ.) (IF=20mA)	λ P	640	nm
Wavelength of Dominant Emission (Typ.) (IF=20mA)	λ D	630	nm
Spectral 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.	
ZM2CR45FW	Red	AlInGaP	Water Clear	650	1495	640 120°
Published Date : FEB 28,2008		Drawing No : SDSA6358		V1	Checked : B.L.LIU	P.1/4

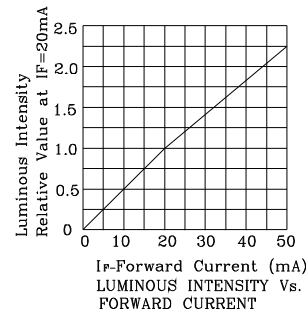


RELATIVE INTENSITY Vs. WAVELENGTH

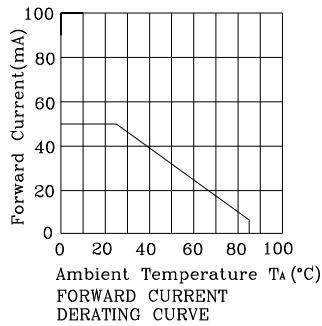
❖ M2CR



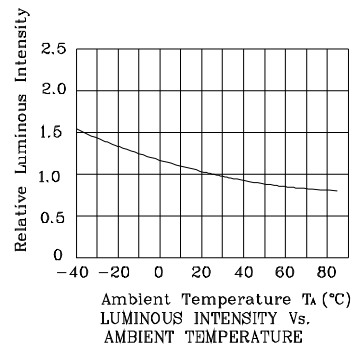
FORWARD CURRENT Vs. FORWARD VOLTAGE



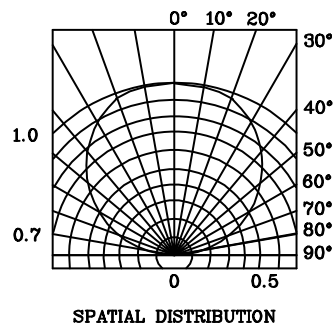
LUMINOUS INTENSITY Vs. FORWARD CURRENT



DERATING CURVE

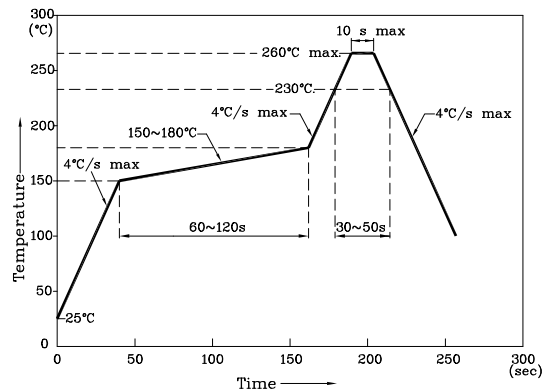


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

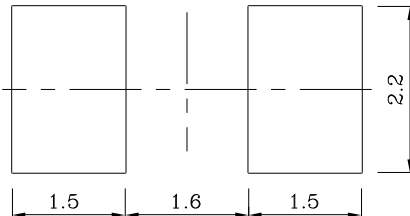
Reflow Soldering Profile For Lead-free SMT Process.



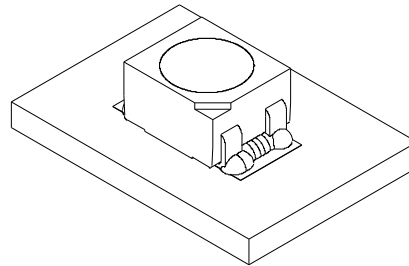
NOTES:

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.

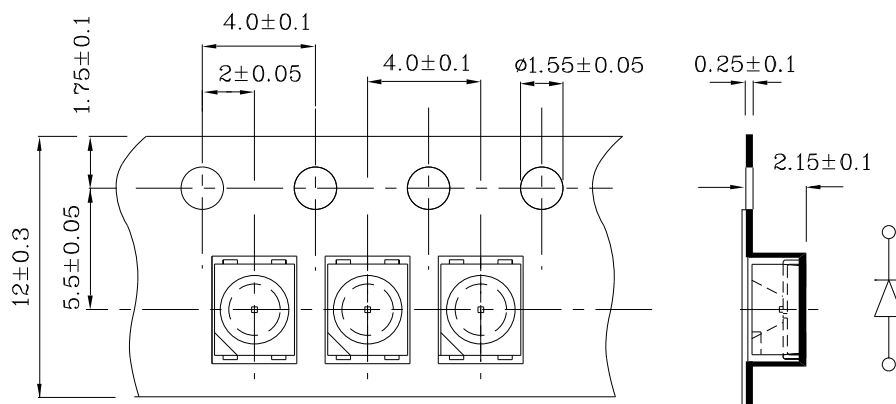
❖ Recommended Soldering Pattern
(Units : mm; Tolerance: ±0.1)



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



❖ Tape Specification (Units : mm)



Remarks:

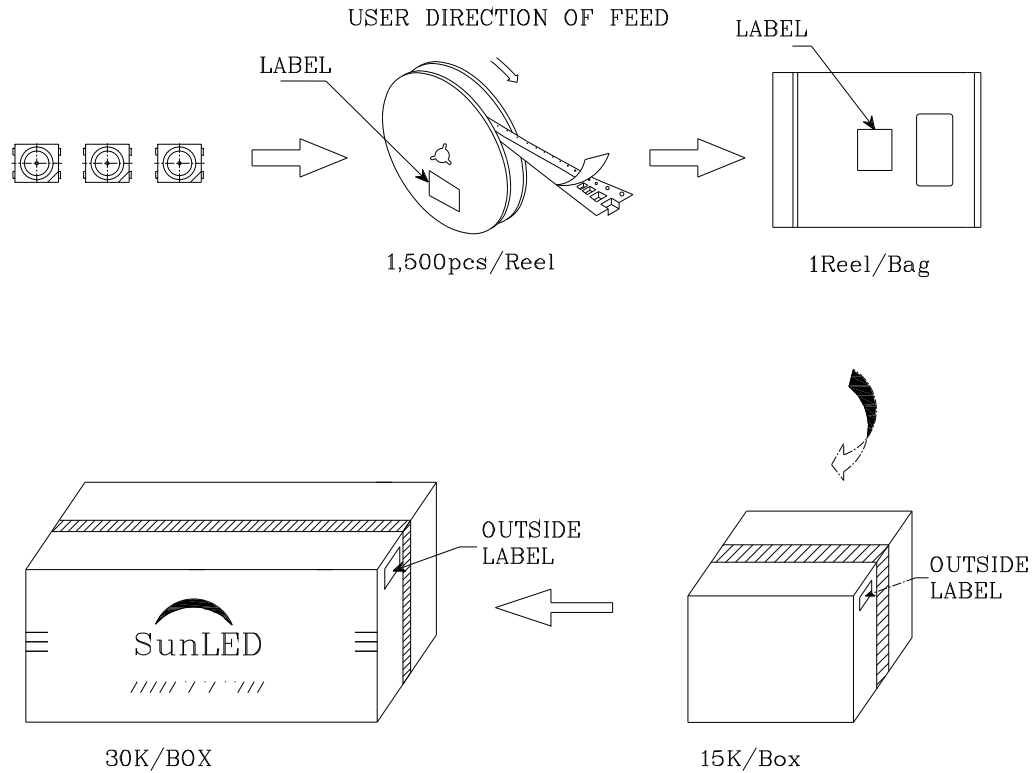
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

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

ZM2CR45FW





Q.C.
 Q C
 XX XX XXXX
 PASSED

P/NO : Zxx45Fx	
QTY : 1,500 pcs	CODE: XXX
S/N : XX	
LOT NO:  XXXXXXXXXXXXXXXXXXXX	
RoHS Compliant	