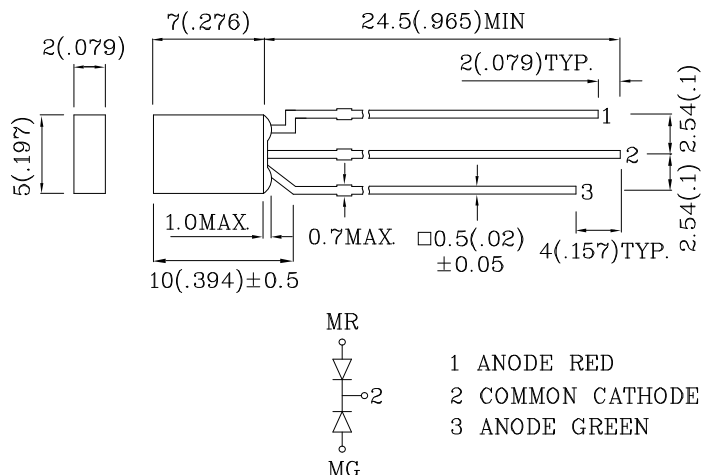


- UNIFORM LIGHT OUTPUT.
- LOW POWER CONSUMPTION.
- 3 LEADS WITH ONE COMMON LEAD.
- I.C. COMPATIBLE.
- LONG LIFE - SOLID STATE RELIABILITY.
- RoHS COMPLIANT.

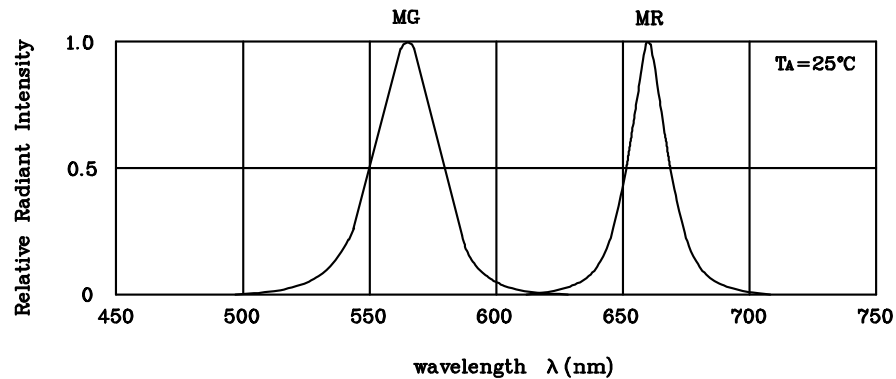


1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01")$ unless otherwise noted.
3. Specifications are subject to change without notice.

Absolute Maximum Ratings (TA=25°C)		MR (GaAlAs)	MG (GaP)	Unit
Reverse Voltage	VR	5	5	V
Forward Current	IF	30	25	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	iFS	155	140	mA
Power Dissipation	PT	75	62.5	mW
Operating Temperature	TA	-40 ~ +85		°C
Storage Temperature	Tstg	-40 ~ +85		
Lead Solder Temperature [2mm Below Package Base]	260°C For 3 Seconds			
Lead Solder Temperature [5mm Below Package Base]	260°C For 5 Seconds			

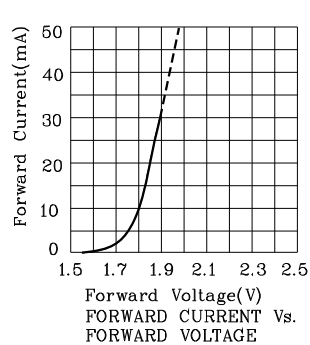
Operating Characteristics (TA=25°C)		MR (GaAlAs)	MG (GaP)	Unit
Forward Voltage (Typ.) (IF=20mA)	VF	1.85	2.2	V
Forward Voltage (Max.) (IF=20mA)	VF	2.5	2.5	V
Reverse Current (Max.) (VR=5V)	IR	10	10	uA
Wavelength Of Peak Emission (Typ.) (IF=20mA)	λ P	660	565	nm
Wavelength Of Dominant Emission (Typ.) (IF=20mA)	λ D	640	568	nm
Spectral Line Full Width At Half-Maximum (Typ.) (IF=20mA)	$\Delta\lambda$	20	30	nm
Capacitance (Typ.) (VF=0V, f=1MHz)	C	45	15	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.		
XSMRMG47MCC	Red	GaAlAs	White Diffused	18	59	660	110°
	Green	GaP		4	11		
Published Date : JAN 12,2008		Drawing No :XDSA2607		V4	Checked : Shin Chi		P.1/5

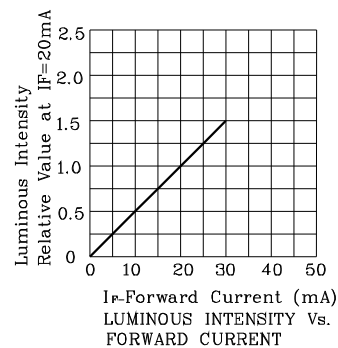


RELATIVE INTENSITY Vs. WAVELENGTH

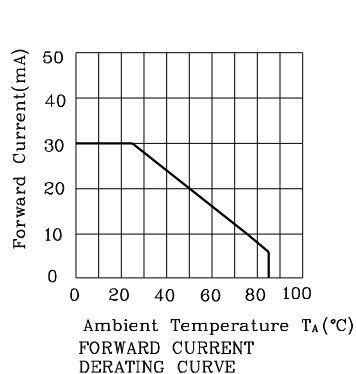
❖ MR



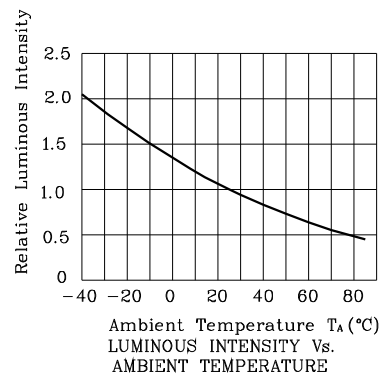
FORWARD CURRENT Vs. FORWARD VOLTAGE



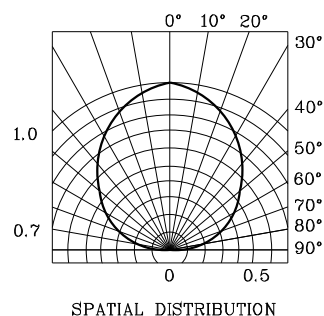
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE

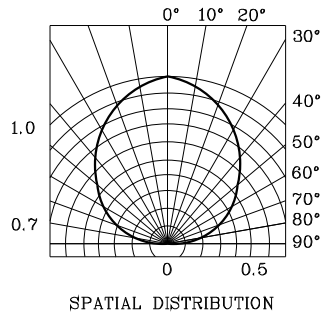
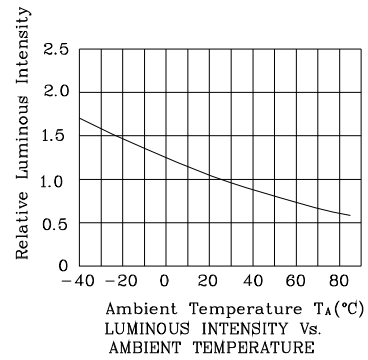
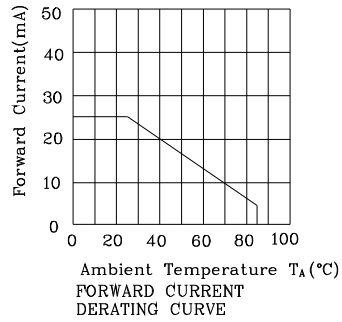
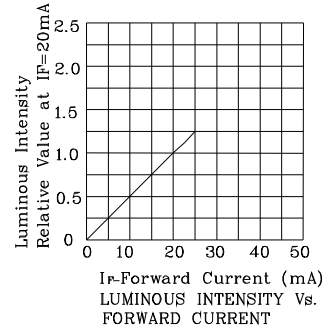
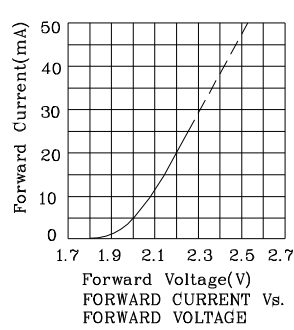


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

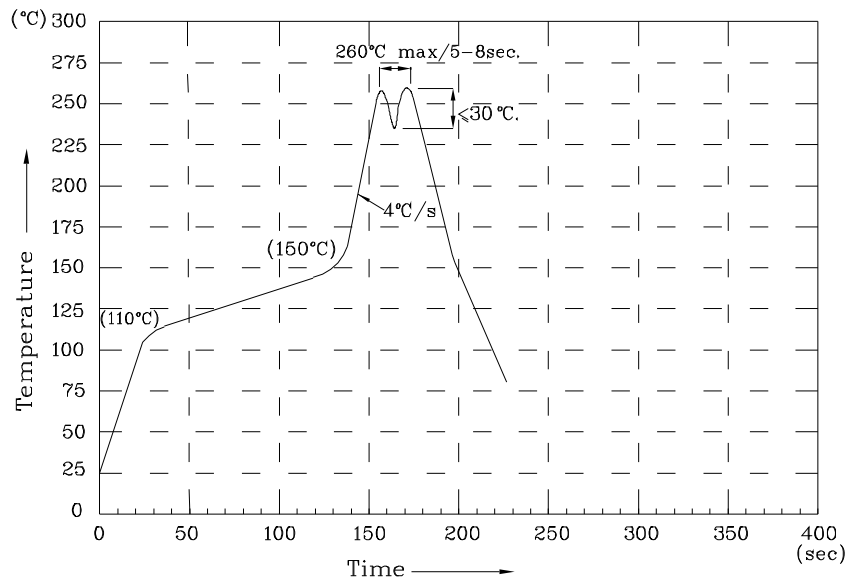


SPATIAL DISTRIBUTION

❖ MG



Wave Soldering Profile For Lead-free Through-hole LED.



NOTES:

- 1.Recommend the wave temperature 245°C~260°C.The maximum soldering temperature should be less than 260°C.
- 2.Do not apply stress on epoxy resins when temperature is over 85 degree°C.
- 3.The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
- 4.No more than once.

Remarks:

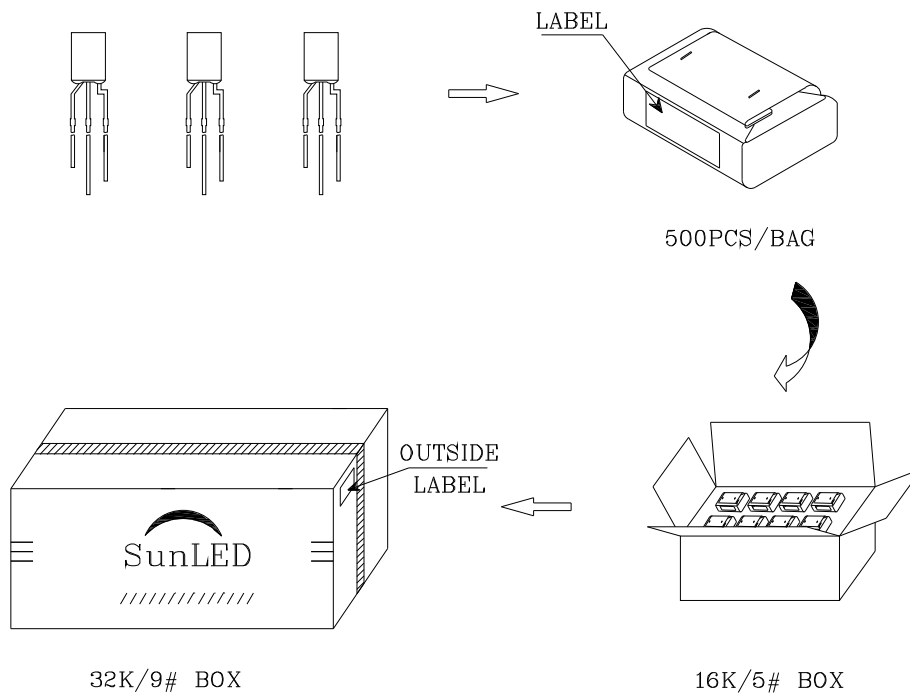
If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux or wavelength), the typical accuracy of the sorting process is as follows:

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

XSMRMG47CC





Q.C.Q.C
 XX XX XXXX
 PASSED

P/NO : XSxxx47x	
QTY : 500 pcs	CODE: XXX
S/N : XX	
LOT NO:  XXXXXXXXXXXXXXXXXXXXXXXX	
RoHS Compliant	