

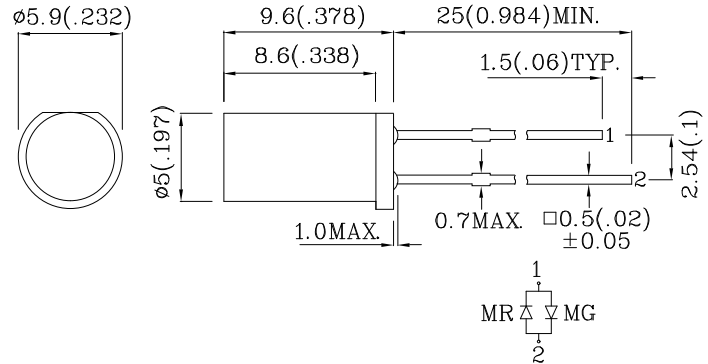
Features

- CYLINDRICAL TYPE, TOP DIFFUSED.
- I.C. COMPATIBLE.
- LOW POWER CONSUMPTION.
- RELIABLE AND RUGGED.
- LONG LIFE-SOLID STATE RELIABILITY.
- AVAILABLE ON TAPE AND REEL.
- RoHS COMPLIANT.



Notes:

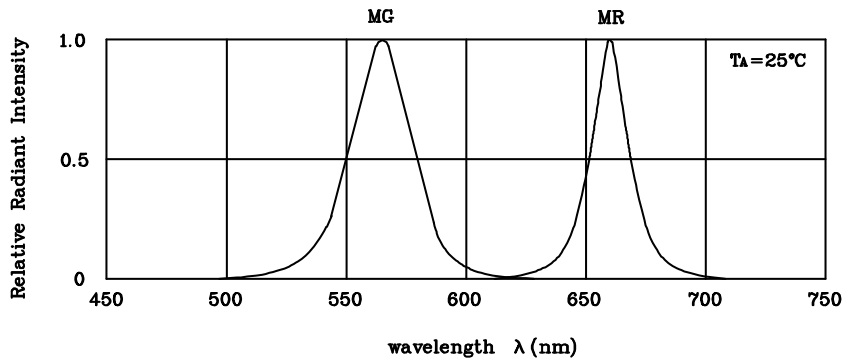
1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01")$ unless otherwise noted.
3. Specifications are subject to change without notice.



Absolute maximum ratings ($T_A=25^\circ\text{C}$)		MR (GaAlAs)	MG (GaP)	Unit
Forward Current	I_F	30	25	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i_{FS}	155	140	mA
Power Dissipation	P_T	75	62.5	mW
Operating Temperature	T_A	-40 ~ +85		°C
Storage Temperature	T_{stg}	-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			

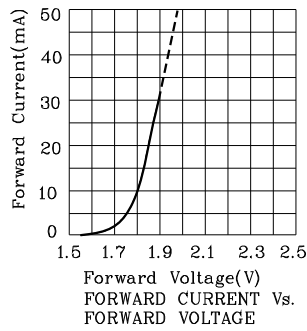
Operating Characteristics ($T_A=25^\circ\text{C}$)		MR (GaAlAs)	MG (GaP)	Unit
Forward Voltage (Typ.) ($I_F=20\text{mA}$)	V_F	1.85	2.2	V
Forward Voltage (Max.) ($I_F=20\text{mA}$)	V_F	2.5	2.5	V
Wavelength of Peak Emission (Typ.) ($I_F=20\text{mA}$)	λ_P	660	565	nm
Wavelength of Dominant Emission (Typ.) ($I_F=20\text{mA}$)	λ_D	640	568	nm
Spectral Line Full Width At Half-Maximum (Typ.) ($I_F=20\text{mA}$)	$\Delta\lambda$	20	30	nm
Capacitance (Typ.) ($V_F=0\text{V}$, $f=1\text{MHz}$)	C	45	15	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity ($I_F=20\text{mA}$) mcd		Wavelength nm λ_P	Viewing Angle 2 θ 1/2
				min.	typ.		
XSMGR15M	Red	GaAlAs	White Diffused	18	49	660	80°
	Green	GaP		4	9	565	

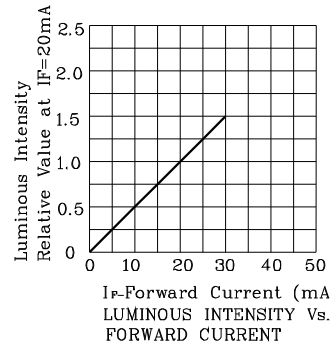


RELATIVE INTENSITY Vs. WAVELENGTH

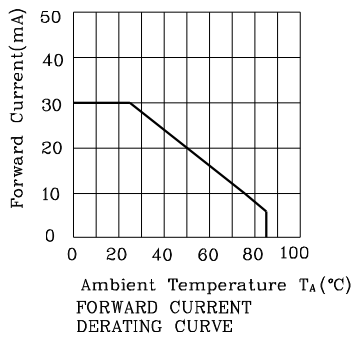
❖ MR



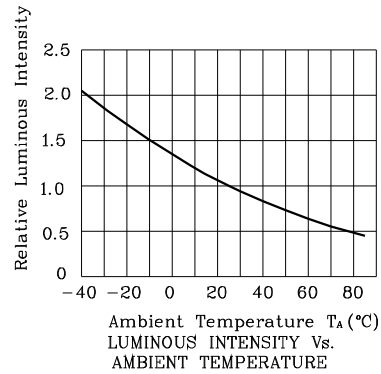
FORWARD CURRENT Vs. FORWARD VOLTAGE



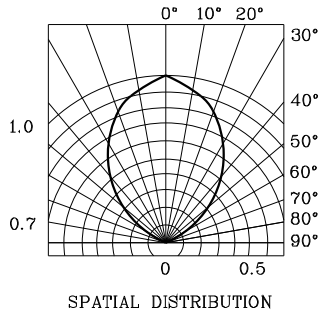
LUMINOUS INTENSITY Vs. FORWARD CURRENT



DERATING CURVE

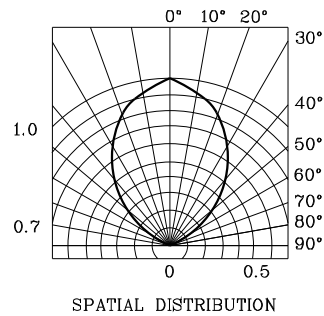
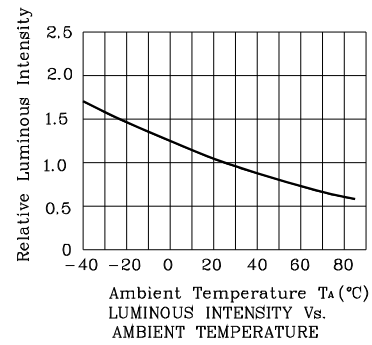
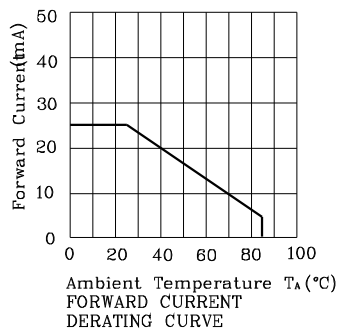
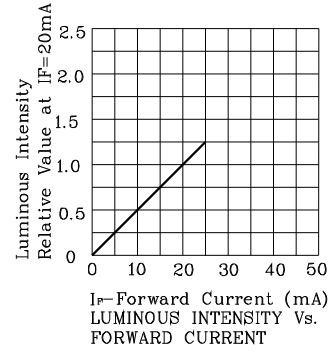
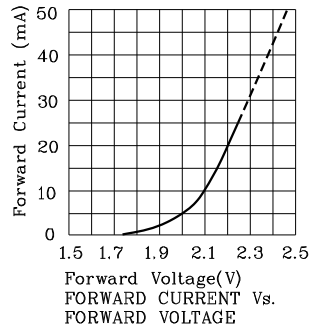


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

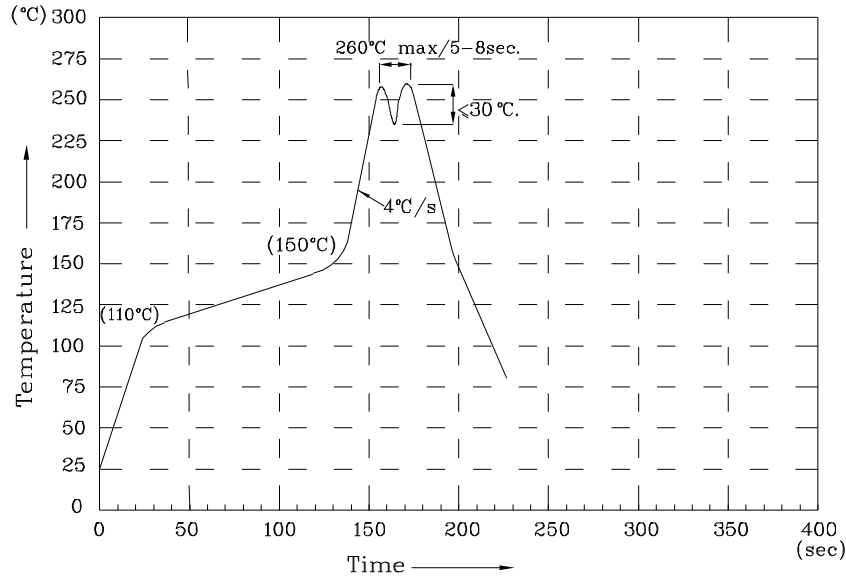


SPATIAL DISTRIBUTION

❖ 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:

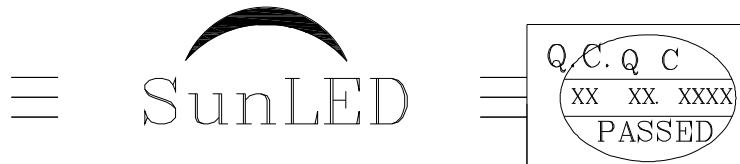
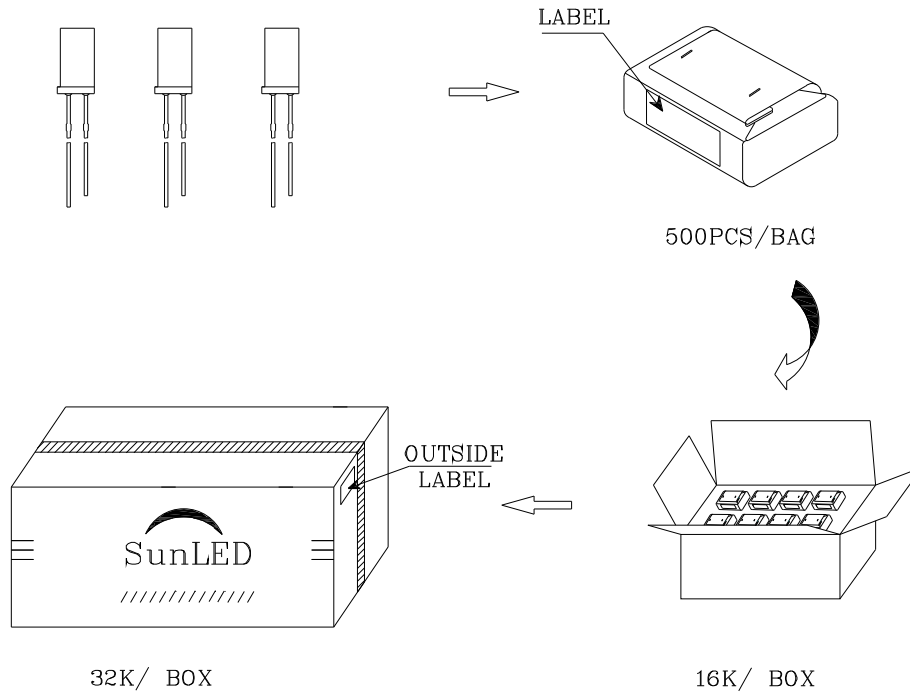
If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux or wavelength), the typical accuracy of the sorting process is as follows:


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

XSMGR15M



P/N0 : XSxxx15x	
QTY : 500 pcs	CODE: XXX
S/N : XX	
LOT NO:	
 XXXXXXXXXXXXXXXXXXXXXXXX	
RoHS Compliant	