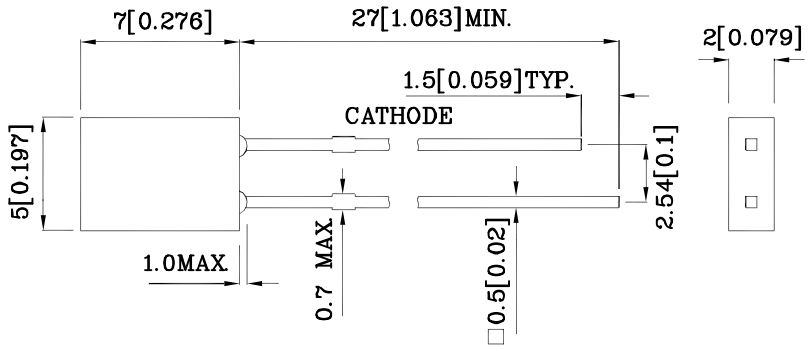
Part Number: XSUG18D

2x5mm RECTANGULAR LED LAMP

Features

- Radial / Through hole package
- Reliable & robust
- Low power consumption
- Available on tape and reel
- RoHS Compliant

Package Schematics

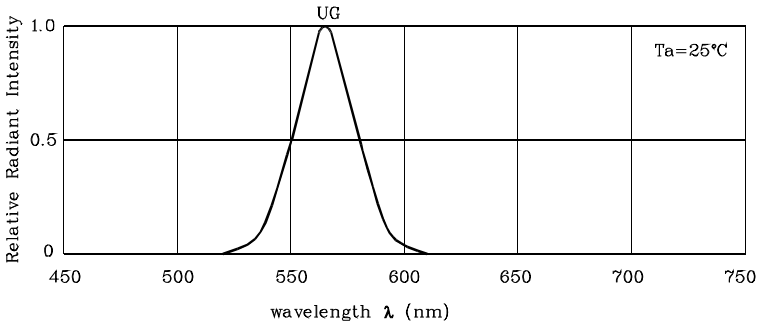


Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25(0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

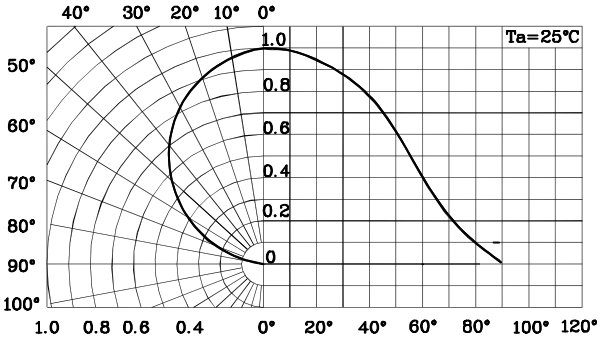
Absolute Maximum Ratings (T_A=25°C)		**UG (GaP)**	**Unit**
Reverse Voltage	V_R	5	V
Forward Current	I_F	25	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i_{FS}	140	mA
Power Dissipation	P_D	62.5	mW
Operating Temperature	T_A	-40 ~ +85	˚C
Storage Temperature	Tstg	-40 ~ +85	
Lead Solder Temperature [2mm Below Package Base]	260°C For 3 Seconds		
Lead Solder Temperature [5mm Below Package Base]	260°C For 5 Seconds		

Operating Characteristics (T_A=25°C)		**UG (GaP)**	**Unit**
Forward Voltage (Typ.) (I_F=10mA)	V_F	2	V
Forward Voltage (Max.) (I_F=10mA)	V_F	2.5	V
Reverse Current (Max.) (V_R=5V)	I_R	10	uA
Wavelength of Peak Emission (Typ.) (I_F=10mA)	λP	565	nm
Wavelength of Dominant Emission (Typ.) (I_F=10mA)	λD	568	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I_F=10mA)	△λ	30	nm
Capacitance (Typ.) (V_F=0V, f=1MHz)	C	15	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (I_F=10mA) mcd		Wavelength nm λP	Viewing Angle 2θ 1/2
				min.	typ.		
XSUG18D	Green	GaP	Green Diffused	2	5	565	110°

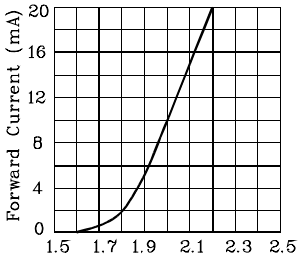


RELATIVE INTENSITY Vs. WAVELENGTH

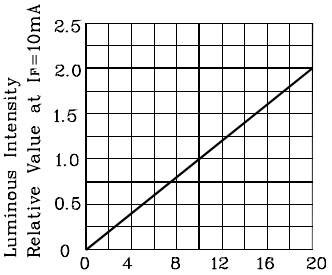


SPATIAL DISTRBUTION

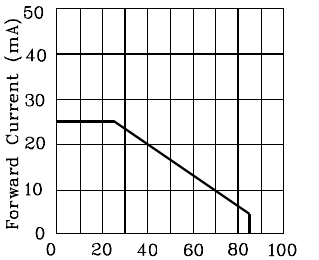
❖ UG



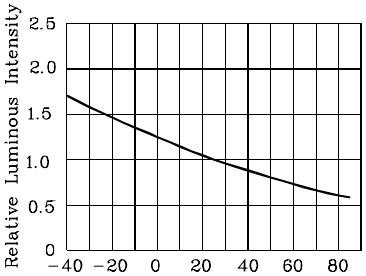
FORWARD CURRENT Vs.
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT

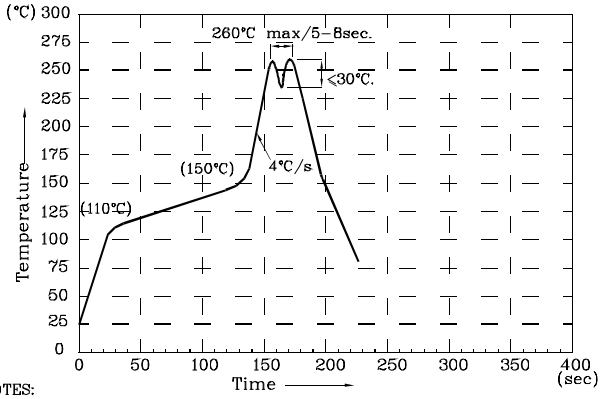


FORWARD CURRENT
DERATING CURVE



LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

Wave Soldering Profile for Thru−Hole Products (Pb−Free Components)



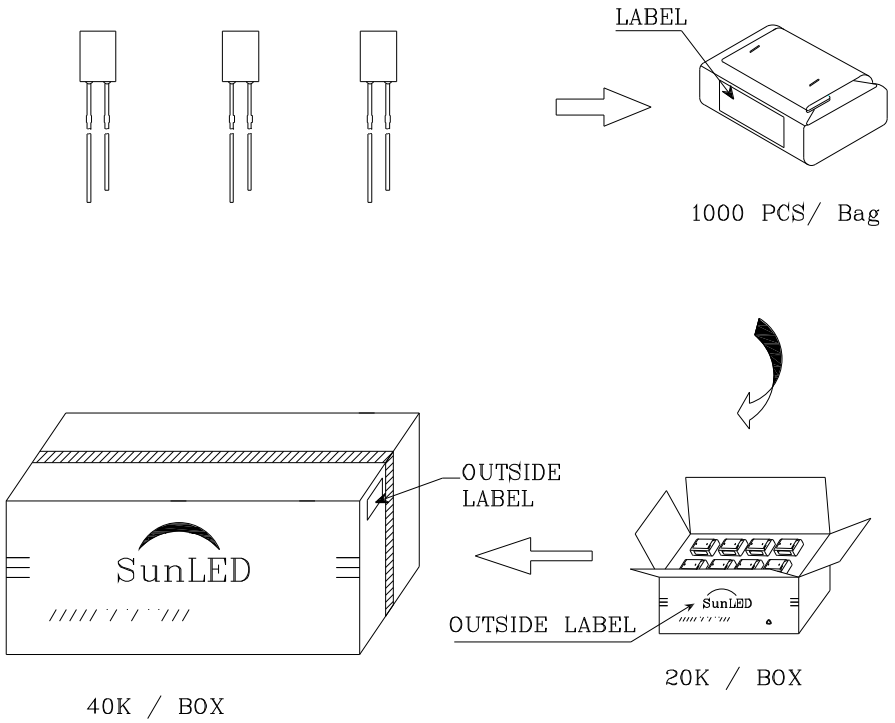
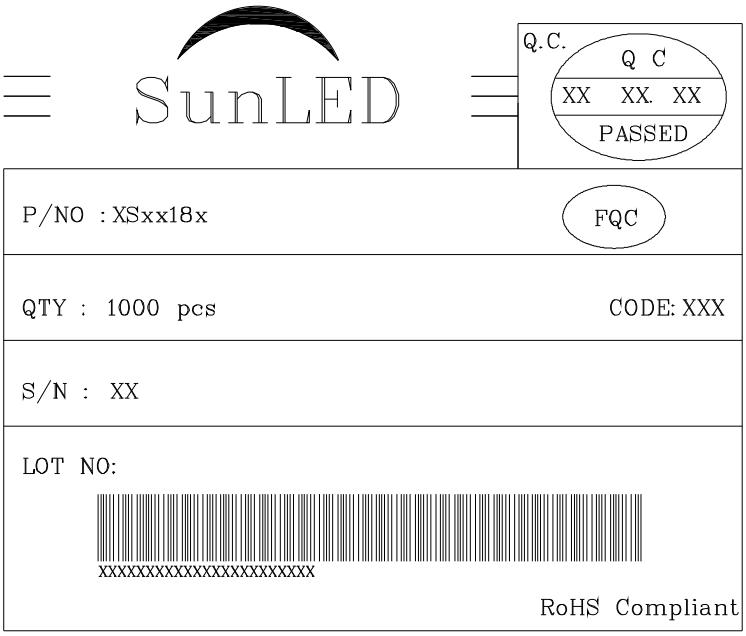
NOTES:

1. Recommend the wave temperature 245℃~260℃.The maximum soldering temperature should be less than 260℃.
2. Do not apply stress on epoxy resins when temperature is over 85℃.
3. The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
4. During wave soldering, the PCB top−surface temperature should be kept below 105℃.
5. 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