SunLED
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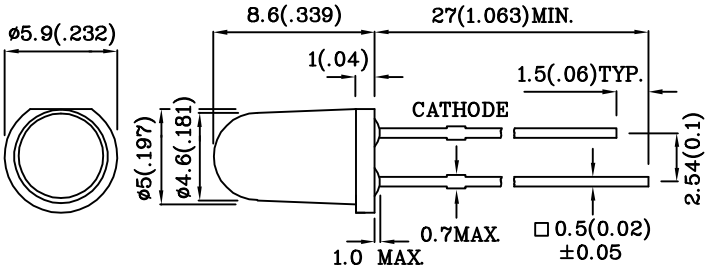
Part Number: **XLUG51C**

T-1 3/4 (5mm) SOLID STATE LAMP

Features

- LOW POWER CONSUMPTION.
- VERSATILE MOUNTING ON P.C. BOARD OR PANEL.
- T-1 3/4 DIAMETER PACKAGE, TAPERED TYPE.
- RELIABLE AND RUGGED.
- RoHS COMPLIANT.



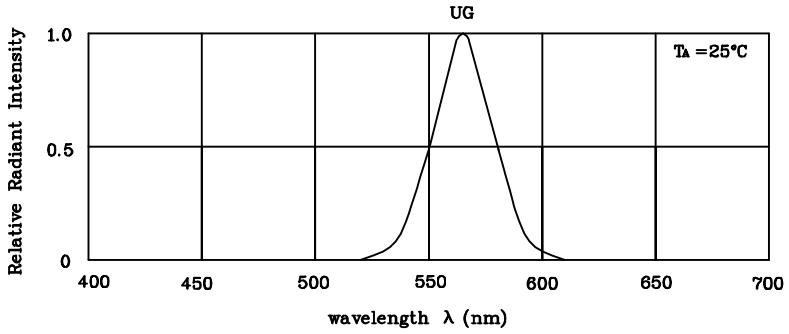
Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25(0.01") unless otherwise noted.

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) 1/10Duty cycle 0.1ms pulse width	i_{FS}	140	mA
Power dissipation	P_T	105	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		

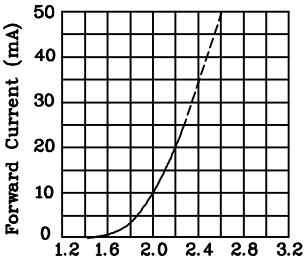
Operating Characteristics (T_A=25°C)		**UG (GaP)**	**Unit**
Forward Voltage (Typ.) (I_F=10mA)	VF	2.0	V
Forward Voltage (Max.) (I_F=10mA)	VF	2.5	V
Reverse Current (V_R=5V)	IR	10	uA
Wavelength of Peak Emission (I_F=10mA)	λ peak	565	nm
Wavelength of Dominant Emission (I_F=10mA)	λ D	568	nm
Spectral Line Full Width At Half-Maximum(I_F=10mA)	Δλ	30	nm
Capacitance (V_F=0V, f=1MHz)	C	15	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=10mA) mcd		Wavelength nm λ P	Viewing Angle 2 θ 1/2
				min.	typ.		
XLUG51C	Green	GaP	Green Transparent	18	49	565	20°

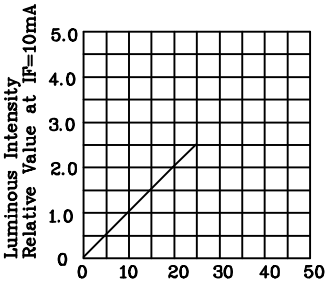


RELATIVE INTENSITY Vs. WAVELENGTH

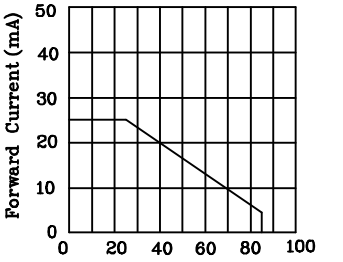
❖ **UG**



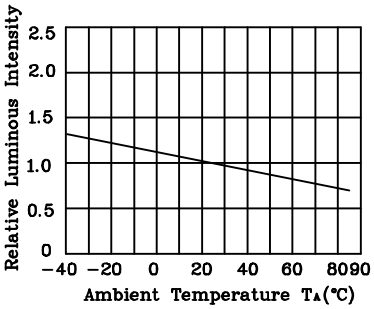
FORWARD CURRENT Vs.
FORWARD VOLTAGE



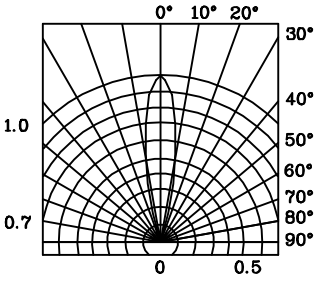
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE



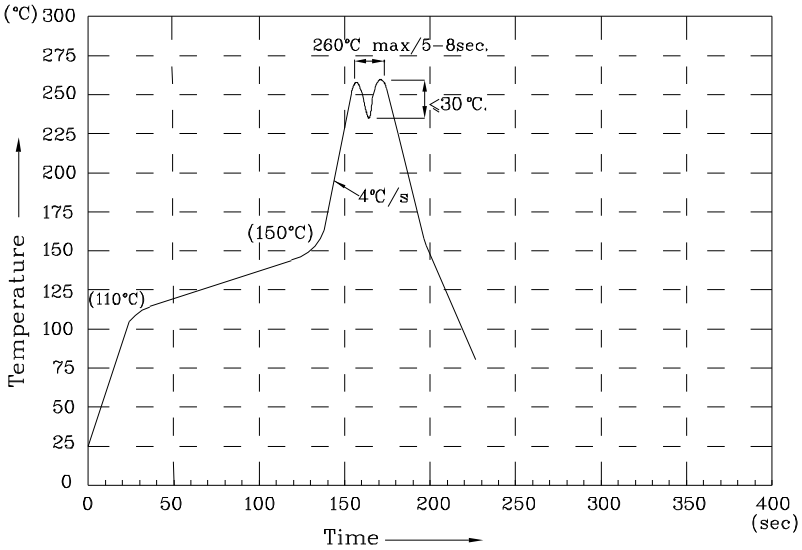
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

XLUG51C

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



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 degree℃.
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, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm
2. Luminous Intensity: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.