

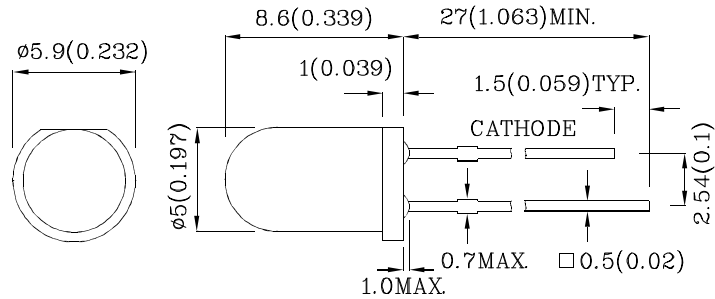
Features

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



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Package Schematics



Notes:

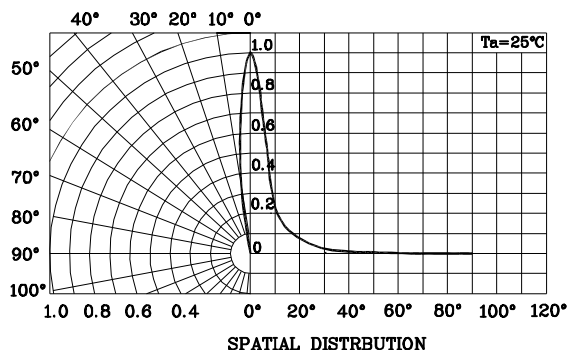
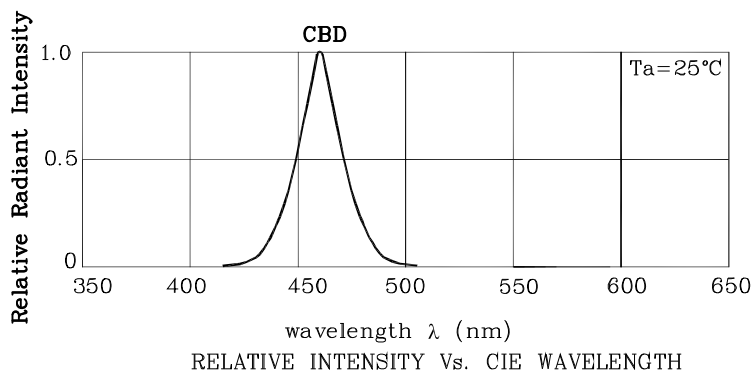
1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
3. Specifications are subject to change without notice.

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$)		CBD (InGaN)	Unit
Reverse Voltage	V_R	5	V
Forward Current	I_F	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i_{FS}	150	mA
Power Dissipation	P_D	120	mW
Operating Temperature	T_A	-40 ~ +85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 ~ +85	
Electrostatic Discharge Threshold (HBM)		250	V
Lead Solder Temperature [2mm Below Package Base]	260 $^\circ\text{C}$ For 3 Seconds		
Lead Solder Temperature [5mm Below Package Base]	260 $^\circ\text{C}$ For 5 Seconds		

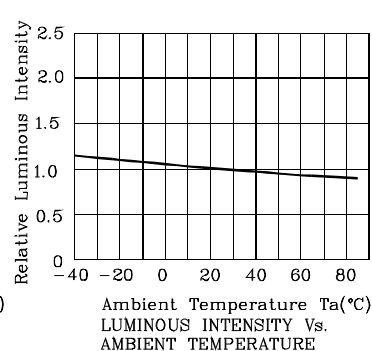
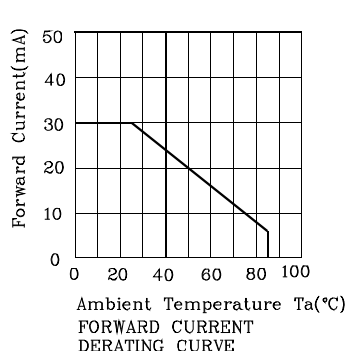
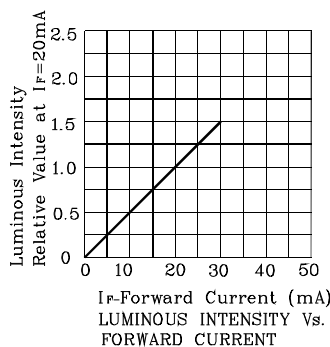
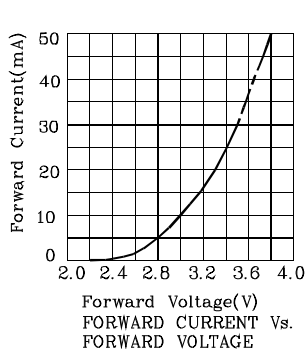
Operating Characteristics ($T_A=25^\circ\text{C}$)		CBD (InGaN)	Unit
Forward Voltage (Typ.) ($I_F=20\text{mA}$)	V_F	3.3	V
Forward Voltage (Max.) ($I_F=20\text{mA}$)	V_F	4	V
Reverse Current (Max.) ($V_R=5\text{V}$)	I_R	50	μA
Wavelength of Peak Emission CIE127-2007*(Typ.) ($I_F=20\text{mA}$)	λ_P	468 460*	nm
Wavelength of Dominant Emission CIE127-2007*(Typ.) ($I_F=20\text{mA}$)	λ_D	470 465*	nm
Spectral Line Full Width At Half-Maximum (Typ.) ($I_F=20\text{mA}$)	$\Delta\lambda$	25	nm
Capacitance (Typ.) ($V_F=0\text{V}$, $f=1\text{MHz}$)	C	100	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* ($I_F=20\text{mA}$) mcd		Wavelength CIE127-2007* nm λ_P	Viewing Angle 2 θ 1/2
				min.	typ.		
XLCBD12W	Blue	InGaN	Water Clear	1700*	2700*	468 460*	16 $^\circ$

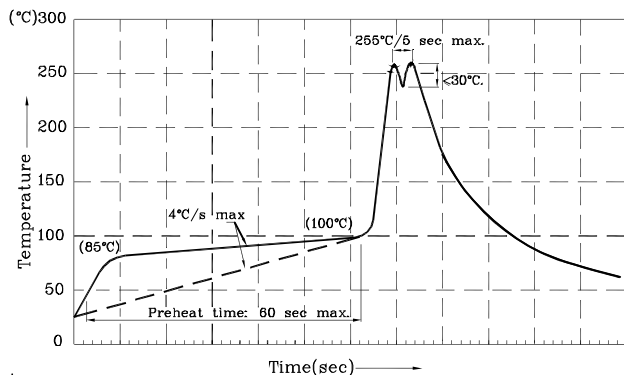
*Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.



❖ CBD



Wave Soldering Profile For Thru-Hole Products (Pb-Free Components)



Notes:

1. Recommend pre-heat temperature of 105°C or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260°C
2. Peak wave soldering temperature between 245°C ~ 255°C for 3 sec (5 sec max).
3. Do not apply stress to the epoxy resin while the temperature is above 85°C.
4. Fixtures should not incur stress on the component when mounting and during soldering process.
5. SAC 305 solder alloy is recommended.
6. No more than one wave soldering pass.

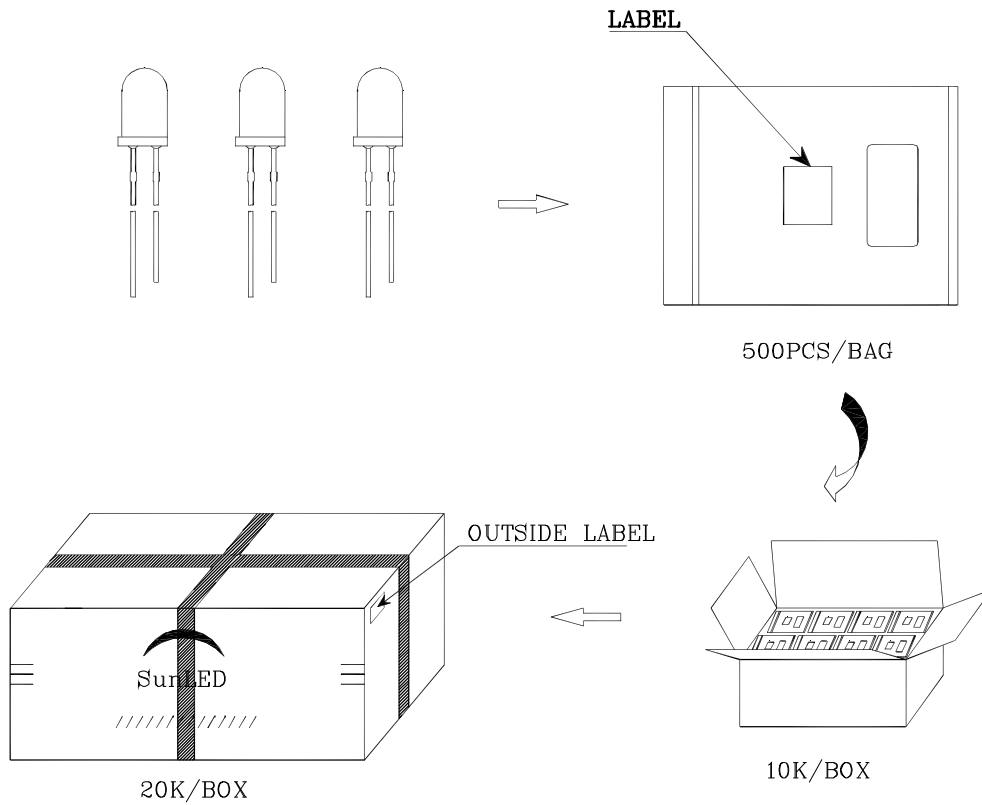
Remarks:

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



		Q.C. Q C XX XX XXXX PASSED
P/NO : XLxx12x		
QTY : 500 pcs		CODE: XXX
S/N : XX		
LOT NO:  xxxxxxxxxxxxxxxxxxxxxxxx		
RoHS Compliant		