

Part Number: XSCBD43MB

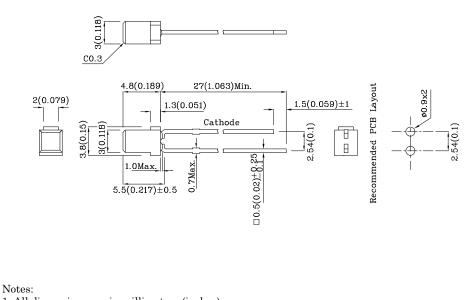
3.0x3.0mm ICE CUBE LED

Features

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



ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES



1. All dimensions are in millimeters (inches).

Package Schematics

- 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°C)	Blue (InGaN)	Unit		
Reverse Voltage	$V_{\rm R}$	5	V	
Forward Current	$I_{\rm F}$	30	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	150	mA	
Power Dissipation	PD	120	mW	
Operating Temperature	$T_{\rm A}$	$-40 \sim +85$	°C	
Storage Temperature	Tstg	-40 ~ +85		
Electrostatic Discharge Threshold (HBM)	250	V		
Lead Solder Temperature [2mm Below Package Base]	260°C For 3 Seconds			
Lead Solder Temperature [5mm Below Package Base]	260°C For 5 Seconds			

A Relative Humidity between 40% and 60% is recommended in ESD-protected work areas to reduce static build up during assembly process (Reference JEDEC/JESD625-A and JEDEC/J-STD-033)

Operating Characteristics (T _A =25°C)		Blue (InGaN)	Unit
Forward Voltage (Typ.) (I _F =20mA)	$V_{\rm F}$	3.3	v
Forward Voltage (Max.) (I _F =20mA)		4	v
Reverse Current (Max.) $(V_R=5V)$	I_R	50	uA
Wavelength of Peak Emission CIE127-2007*(Typ.) (I _F =20mA)	λP	460*	nm
Wavelength of Dominant Emission CIE127-2007*(Typ.) (I _F =20mA)	λD	465*	nm
Spectral Line Full Width At Half-Maximum (Typ.)		25	nm
Capacitance (Typ.) (V _F =0V, f=1MHz)	С	100	pF

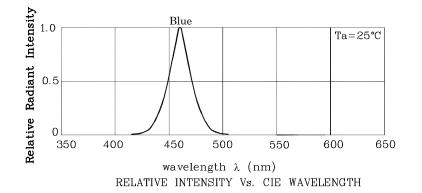
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* (IF=20mA) mcd		Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
				min.	typ.		
XSCBD43MB	Blue	InGaN	White Triple Diffused	20*	59*	460*	140°

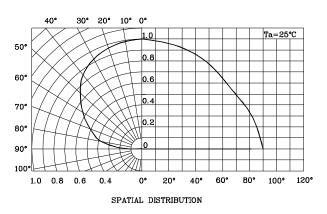
*Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

Oct 10,2016

XDSB4189 V5-Z Layout: Maggie L.

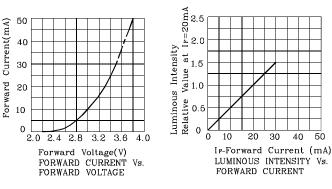


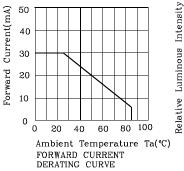




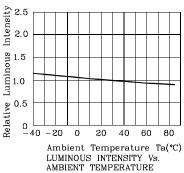
Blue

(°C)300



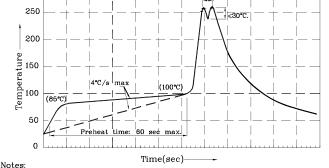


50



255°C/5 sec max

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



I.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),

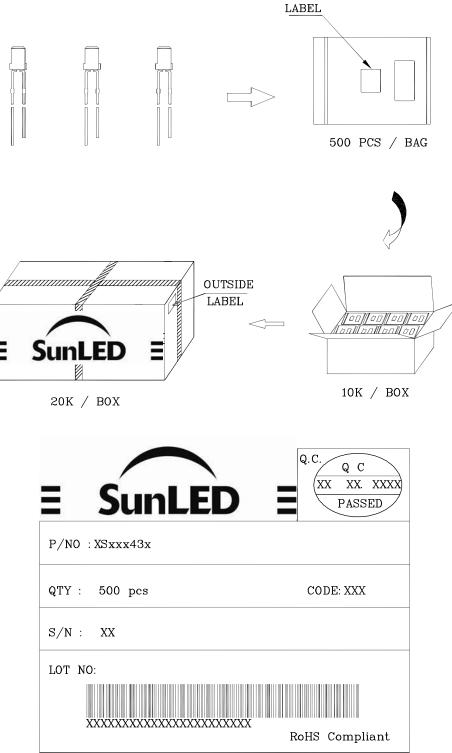
the typical accuracy of the sorting process is as follows:

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

Note: Accuracy may depend on the sorting parameters.



3.0x3.0mm ICE CUBE LED



TERMS OF USE

- 1. Data presented in this document reflect statistical figures and should be treated as technical reference only.
- 2. Contents within this document are subject to improvement and enhancement changes without notice.
- 3. The product(s) in this document are designed to be operated within the electrical and environmental specifications indicated on the datasheet.
- User accepts full risk and responsibility when operating the product(s) beyond their intended specifications.
- 4. The product(s) described in this document are intended for electronic applications in which a person's life is not reliant upon the LED. Please consult with a SunLED representative for special applications where the LED may have a direct impact on a person's life.
- 5. The contents within this document may not be altered without prior consent by SunLED.
- 6. Additional technical notes are available at http://www.SunLEDusa.com/TechnicalNotes.asp

Oct 10,2016