

Part Number: XSCGS23MB

5.0x5.0mm ICE CUBE LED

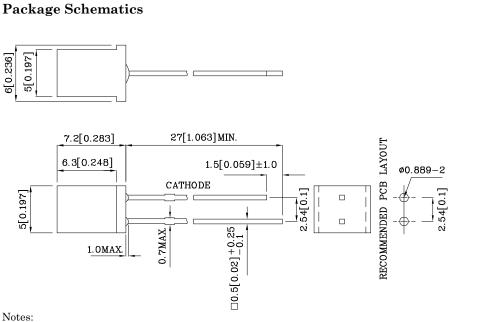
Features

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





ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES



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°C)		CGS (InGaN)	Unit	
Reverse Voltage	V_{R}	5	V	
Forward Current	\mathbf{I}_{F}	25	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	150	mA	
Power Dissipation	\mathbf{P}_{D}	95	mW	
Operating Temperature	$T_{\rm A}$	$-40 \sim +85$	°C	
Storage Temperature	Tstg	$-40 \sim +85$	U	
Electrostatic Discharge Threshold (HBM)		450	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			

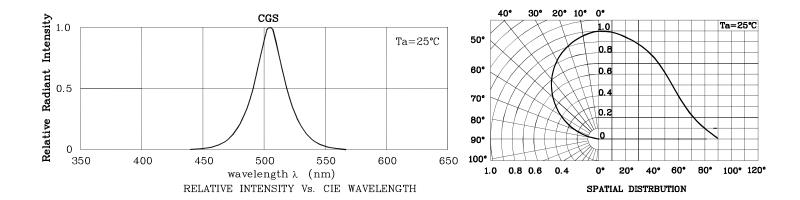
Operating Characteristics (T _A =25°C)		CGS (InGaN)	Unit
Forward Voltage (Typ.) (I _F =20mA)	V_{F}	3.2	V
Forward Voltage (Max.) (I _F =20mA)	V_{F}	3.8	V
Reverse Current (Max.) (V _R =5V)	I_R	10	uA
Wavelength of Peak Emission CIE127-2007*(Typ.) (I _F =20mA)	λP	505*	nm
Wavelength of Dominant Emission CIE127-2007*(Typ.) (I _F =20mA)	λD	505*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I _F =20mA)	$ riangle\lambda$	28	nm
Capacitance (Typ.) (V _F =0V, f=1MHz)	С	45	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.		
XSCGS23MB	Blue Green	InGaN	White Triple Diffused	70*	148*	505*	110°

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

Dec 10,2013

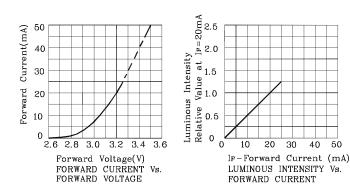


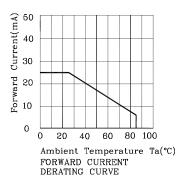


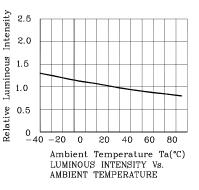
50

Vs.

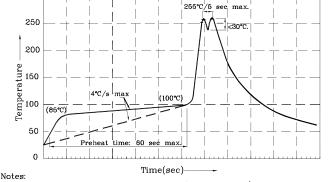
♦ CGS







Wave Soldering Profile For Thru-Hole Products (Pb-Free Components) (°C)300



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:

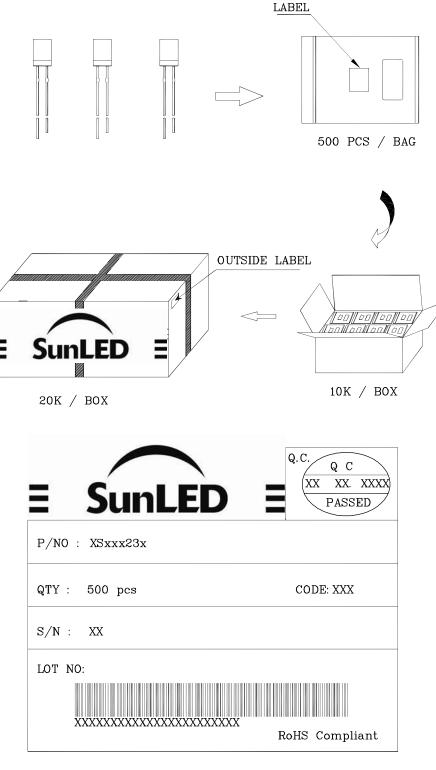
- 1. Wavelength: +/-1nm
- 2. Luminous Intensity / Luminous Flux: +/-15%
- 3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.



5.0x5.0mm 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.
- $6. \ Additional \ technical \ notes \ are \ available \ at \ \underline{http://www.SunLEDusa.com/TechnicalNotes.asp}$

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