

Part Number: XSUBK23MB

5.0x5.0mm ICE CUBE LED

# **Features**

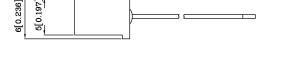
- $\bullet$  Low power consumption.
- Wide viewing angle.
- Reliable and rugged.
- Excellent uniformity of light output.
- Ideal as flush mounted panel indicators.
- Long life solid state reliability.
- RoHS compliant.

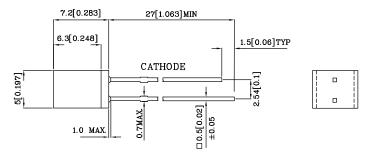






ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES





## 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 Rating (TA=25°C)	UBK (AlGaN/GaN)	Unit			
Reverse Voltage	VR	5	V		
Forward Current	IF	30	mA		
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	iFS	150	mA		
Power Dissipation	PD	156	mW		
Operating Temperature	TA	-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 Characteris (TA=25°C)	UBK (AlGaN/GaN)	Unit	
Forward Voltage (Typ.) (IF=20mA)	VF	4.0	V
Forward Voltage (Max.) (IF=20mA)	$V_{\rm F}$	5.2	V
Reverse Current (Max.) (VR=5V)	IR	10	uA
Wavelength of Peak Emission (Typ.) (IF=20mA)	λΡ	430	nm
Wavelength of Dominant Emission (Typ.) (IF=20mA)	λ D	466	nm
Spectral Line Full Width At Half- Maximum (Typ.) (IF=20mA)	Δλ	60	nm
Capacitance (Typ.) (VF=0V, f=1MHz)	С	100	pF

Number	Color	Material	Lens-color	Luminous Intensity (IF=20mA) mcd		nm λ P	Angle 2 0 1/2
				min.	typ.		
XSUBK23MB	Blue	AlGaN/GaN	White Triple Diffused	0.4	1.9	430	110°

Published Date: FEB 11,2010 Drawing No: XDSB4240 V1 Checked: B.L.LIU P.1/4



Relative Radiant Intensity

1.0

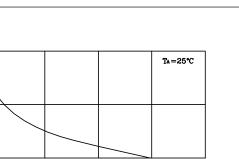
0.5

350

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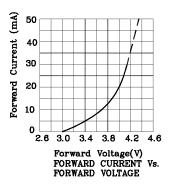
650



 $\label{eq:wavelength} \begin{tabular}{ll} wavelength & $\lambda$ (nm) \\ \hline \end{tabular}$  RELATIVE INTENSITY Vs. WAVELENGTH

500

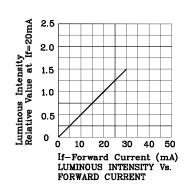
## **♦** UBK

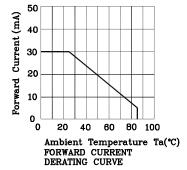


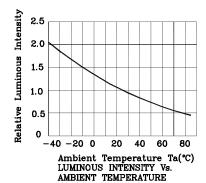
UBK

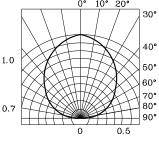
450

400









SPATIAL DISTRIBUTION

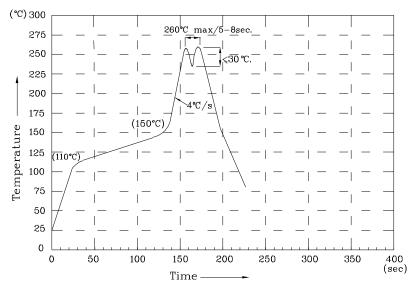
Published Date : FEB 11,2010 Drawing No : XDSB4240 V1 Checked : B.L.LIU P.2/4

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



### NOTES:

- 1.Recommend the wave temperature 245°C~260°C.The maximum soldering temperature should be less than 260°C.
- 2.Do not apply stress on epoxy resins when temperature is over 85 degree°C.
- 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/ 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.

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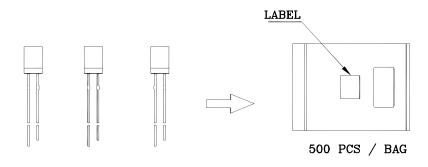


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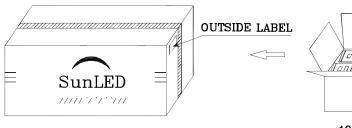
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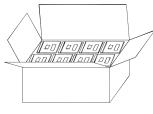
# PACKING & LABEL SPECIFICATIONS

# XSUBK23MB



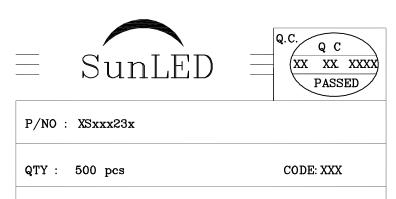






20K / BOX





S/N : XX

LOT NO:

RoHS Compliant

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