

3.0x3.0mm ICE CUBE LED

#### **Features**

- •Low power consumption.
- •Wide viewing angle.
- •Reliable and rugged.
- ullet Excellent uniformity of light output.
- ullet Ideal for flush mounted panel indicators.
- •RoHS compliant.

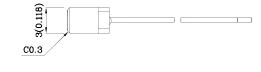


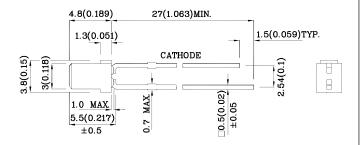




ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

2(0.079)





#### Notes:

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm$  0.25(0.01") unless otherwise noted.
- $3. {\rm Specifications}$  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	<b>5</b> C	
Lead Solder Temperature [2mm Below Package Base]	260°C For 3 Seconds			
Lead Solder Temperature [5mm Below Package Base]	260°C For 5 Seconds			

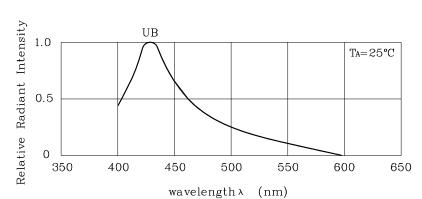
Operating Characteristics (TA=25°C)	UBK (AlGaN/ GaN)	Unit	
Forward Voltage (Typ.) (IF=20mA)	$V_{\rm F}$	4.0	V
Forward Voltage (Max.) (IF=20mA)	$V_{\rm F}$	5.2	V
Reverse Current (Max.) (V <sub>R</sub> =5V)	IR	10	uA
Wavelength of Peak Emission (Typ.) (IF=20mA)	λΡ	430	nm
Wavelength of Dominant Emission (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

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=20mA) mcd		Wavelength nm λ P	Viewing Angle 2 0 1/2	
				min.	typ.			
XSUBK43MB	Blue	AlGaN/GaN	White Triple Diffused	0.7	2.4	430	110°	_
Published Date : FE	B 11,2010	Drawing N	To :XDSB4237 VI		Checked : B	.L.LIU	P.1/4	



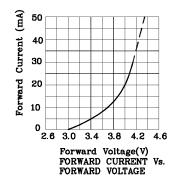
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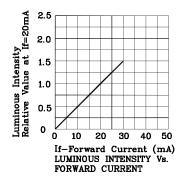


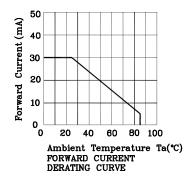


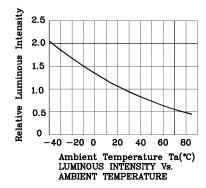
RELATIVE INTENSITY Vs. WAVELENGTH

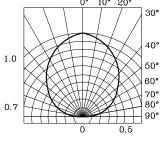
# **❖** UBK







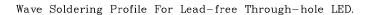


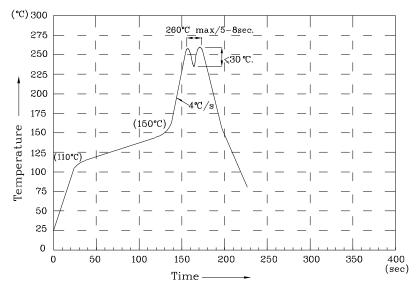


SPATIAL DISTRIBUTION

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#### 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.

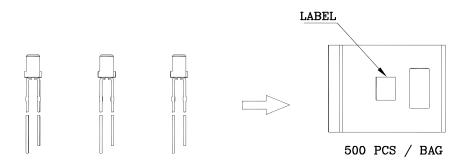


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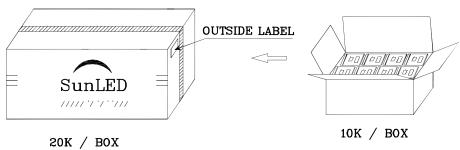


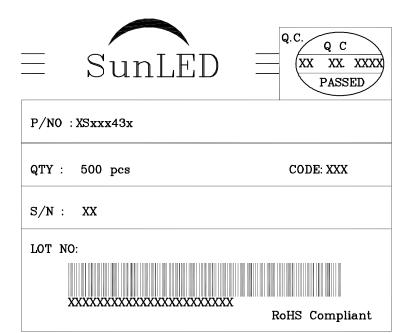
# PACKING & LABEL SPECIFICATIONS

# XSUBK43MB









Published Date: FEB 11,2010 Drawing No: XDSB4237 V1 Checked: B.L.LIU P.4/4