



SUPER FLUX LED LAMP

## PRELIMINARY SPEC

#### Features:

- •HIGH LUMINANCE OUTPUT.
- DESIGN FOR HIGH CURRENT OPERATION.
- •UNIFORM COLOR.
- •LOW POWER CONSUMPTION.
- •LOW THERMAL RESISTANCE.
- •LOW PROFILE.
- PACKAGED IN TUBES FOR USE WITH AUTOMATIC INSERTION EQUIPMENT.
- SOLDERING METHODS: WAVE SOLDERING
- RoHS COMPLIANT.





## ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE

#### Benefits:

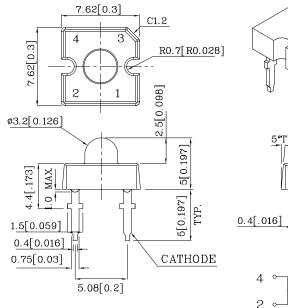
- \*Outstanding Material Efficiency.
- \*Electricity savings.
- \*Maintenance savings.
- \*Reliable and Rugged.

#### Typical Applications:

- \*Automotive Exterior Lighting.
- \*Electronic Signs and Signals.
- \*Specialty Lighting.

Absolute Maximum Ratings (TA=25°C)	M2BB (InGaN)	Unit		
Reverse Voltage	VR	5	V	
Forward Current	IF	50	mA	
Power Dissipation	Рт	210 m		
Operating Temperature	TA	-40 ~ +85	°C	
Storage Temperature	Tstg	-55 ~ +85		
Electrostatic Discharge Threshold (HBM)		1000	V	
Lead Solder Temperature [1.5mm(0.06inch)Below Seating Plane.][1]		260°C For 5 Seconds		

1.No Reflow soldering .



# 0.4[.016] 5.08[0.2] 4 3 2 1

#### 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.

Operating Characteristics (TA=25°C)		M2BB (InGaN)	Unit	
Forward Voltage (Typ.) (IF=50mA)	VF	3.5	V	
Forward Voltage (Max.) (IF=50mA)	VF	4.2	V	
Reverse Current (Max.) (VR=5V)	IR	10	uA	
Wavelength Of Peak Emission (Typ.) (IF=50mA)	λΡ	458	nm	
Wavelength Of Dominant Emission (Typ.) (IF=50mA)	λD	465	nm	
Spectral Line Full Width At Half-Maximum (Typ.) (IF=50mA)	Δλ	22	nm	
Capacitance (Typ.) (VF=0V, f=1MHz)	C	110	pF	
Thermal Resistance (Typ.)	Rθj-pin	130	°C/W	

 $Published\ Date: MAR\ 26,\ 2008 \qquad \qquad Drawing\ No: SDSA6587 \qquad \qquad V1 \qquad \qquad Checked: B.L.LIU \qquad \qquad P.\ 1/4$ 



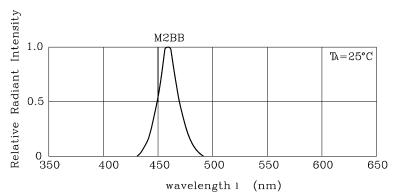


#### Part Number: SM2BB783W

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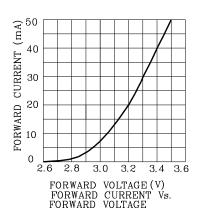
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=50mA)[1] mcd		Wavelength nm λ P	Viewing Angle[2] 2 0 1/2
				Min.	Тур.		
SM2BB783W	Blue	InGaN	Water Clear	5700	9490	458	15°

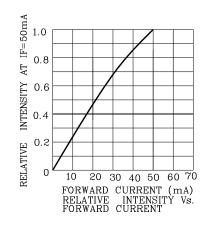
1.LUMINOUS INTENSITY IS MEASURED WITH AN INTEGRATING SPHERE AFTER THE DEVICE HAS STABILIZED. 2.  $\theta$  1/2 IS THE ANGLE FROM OPTICAL CENTERLINE WHERE THE LUMINOUS INTENSITY IS 1/2 THE OPTICAL CENTERLINE VALUE.

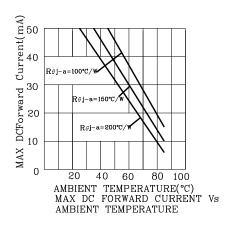


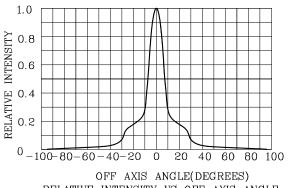
#### RELATIVE INTENSITY Vs. WAVELENGTH

#### **❖** M2BB









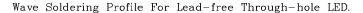
RELATIVE INTENSITY VS OFF AXIS ANGLE

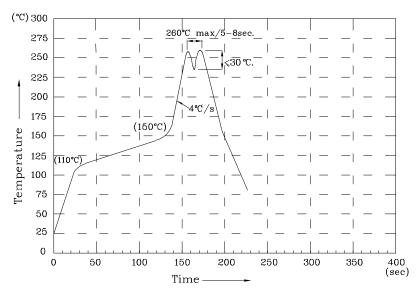
P. 2/4 Published Date: MAR 26, 2008 Drawing No: SDSA6587 V1Checked: B.L.LIU



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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  $^{\circ}\text{C}.$
- 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.

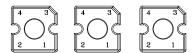


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## PACKING & LABEL SPECIFICATIONS

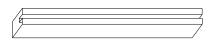
#### SM2BB783W





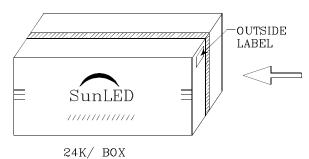


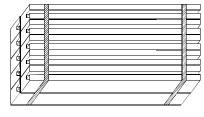




75PCS/IC TUBE

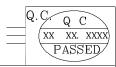






750pcs/10pcs IC TUBE





P/N0 : Sxx783x

750 pcs QTY:

CODE: XXX

S/N: XX

LOT NO:



RoHS Compliant

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