

PRELIMINARY SPEC



ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES

Features

- SUPER HIGH FLUX OUTPUT AND HIGH LUMINANCE.
- DESIGNED FOR HIGH CURRENT OPERATION.
- LOW THERMAL RESISTANCE.
- LOW VOLTAGE DC OPERATED.
- SUPERIOR ESD PROTECTION.
- PACKAGE: 500PCS/REEL.
- NOT REFLOW COMPATIBLE.
- THE COMPONENT IS INTERNALLY PROTECTED WITH SILICONE GEL.
- RoHS COMPLIANT.



Applications

- Traffic signaling.
- Backlighting (illuminated advertising, general lighting).
- Interior and exterior automotive lighting.
- Substitution of micro incandescent lamps.
- Portable light source (e.g. bicycle flashlight).
- Signal and symbol luminaire for orientation.
- Marker lights (e.g. steps, exit ways, etc).
- Decorative and entertainment lighting .
- Indoor and outdoor commercial and residential architectural lighting.



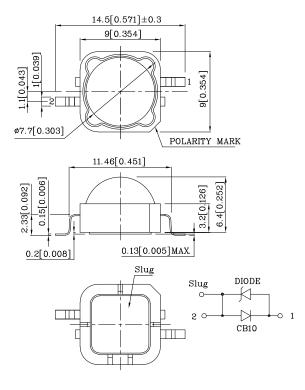
Application Note

Static electricity and surge damage the LEDS.

It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

All devices, equipment and machinery must be electrically grounded.

Outline Drawings



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.

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election Guide						
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=350mA) cd		Viewing Angle 2 0 1/2 [2]
				min.	typ.	
XZCB10X106W	Blue	InGaAIN	Water Clear	3.8	5.5	100°

Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Value	Unit
Power dissipation	Pt	1.25	W
Junction temperature	TJ	110	°C
Operating Temperature	Тор	-40 To +100	°C
Storage Temperature	Tstg	-40 To +100	°C
DC Forward Current [1]	IF	350	mA
Peak Forward Current [3]	IFM	500	mA
Thermal resistance [1]	${ m Rth}$ j-slug	9	°C/W
Electrostatic Discharge Threshold (HBM)		8000	V
Iron Soldering [4]		350°C For 3 Seconds	·

Notes:

1.Metal Core PCB is mounted on the heat Fins.

 $2.\theta$ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

3.1/10 Duty Cycle, 0.1ms Pulse Width.

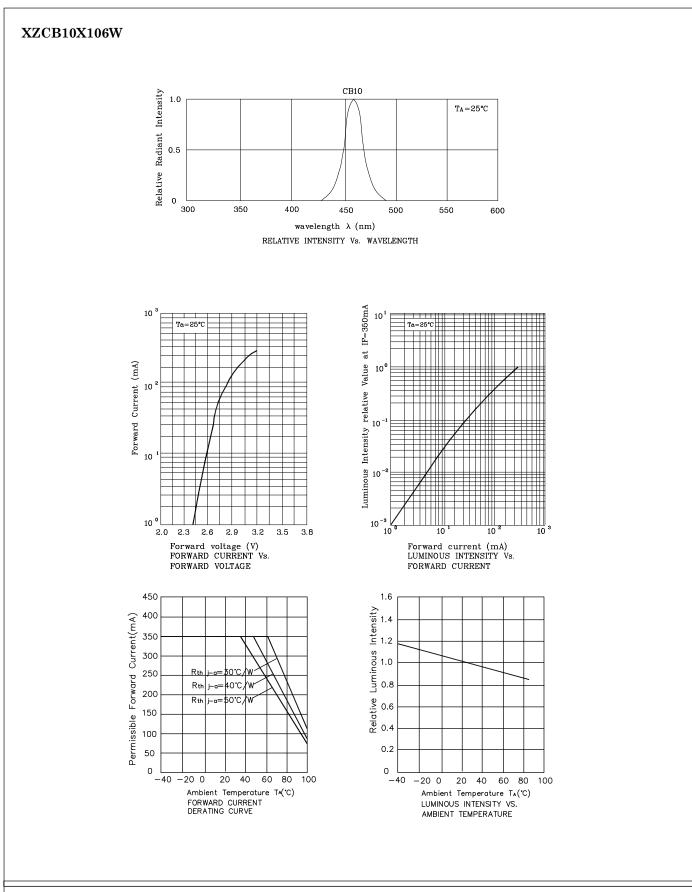
4. 1.29mm below package base.

Electrical / Optical Characteristics at TA=25°C

Parameter	Symbol	Value	Unit
Wavelength at peak emission IF=350mA [Typ.]	λ peak	452	nm
Dominate Wavelength IF=350mA [Typ.]	λ dom	458	nm
Spectral bandwidth at 50% Φ REL MAX IF=350mA [Typ.]	Δλ	20	nm
Forward Voltage IF=350mA [Min.]		2.8	
Forward Voltage IF=350mA [Typ.]	$V_{\rm F}$	3.2	V
Forward Voltage IF=350mA [Max.]		3.6	
Temperature coefficient of lpeak IF=350mA, $-10^{\circ}C \leq T \leq 100^{\circ}C$ [Typ.]	${ m TC}\lambda{ m peak}$	0.2	nm/°C
Temperature coefficient of ldom IF=350mA, -10°C≤ T≤100°C [Typ.]	$\mathrm{TC}\lambdadom$	0.1	nm/°C
Temperature coefficient of VF IF=350mA, -10 ° C≤ T≤100 ° C [Typ.]	TCv	-3.2	mV/°C



Part Number:	XZCB10X106W

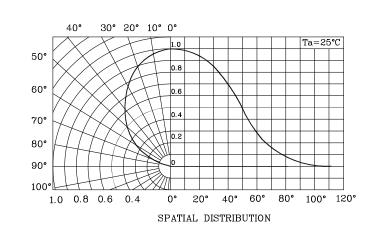


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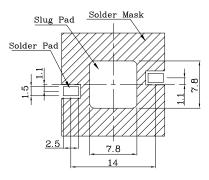


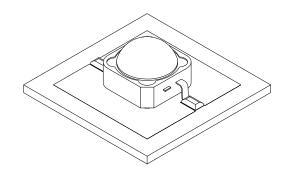
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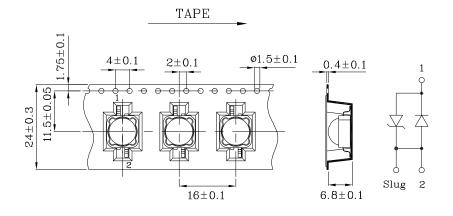
Recommended Soldering Pattern (Units : mm; Tolerance: ±0.1)

The device has a single mounting surface. The device must be mounted according to the specifications.





Tape Specification (Units : mm)



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

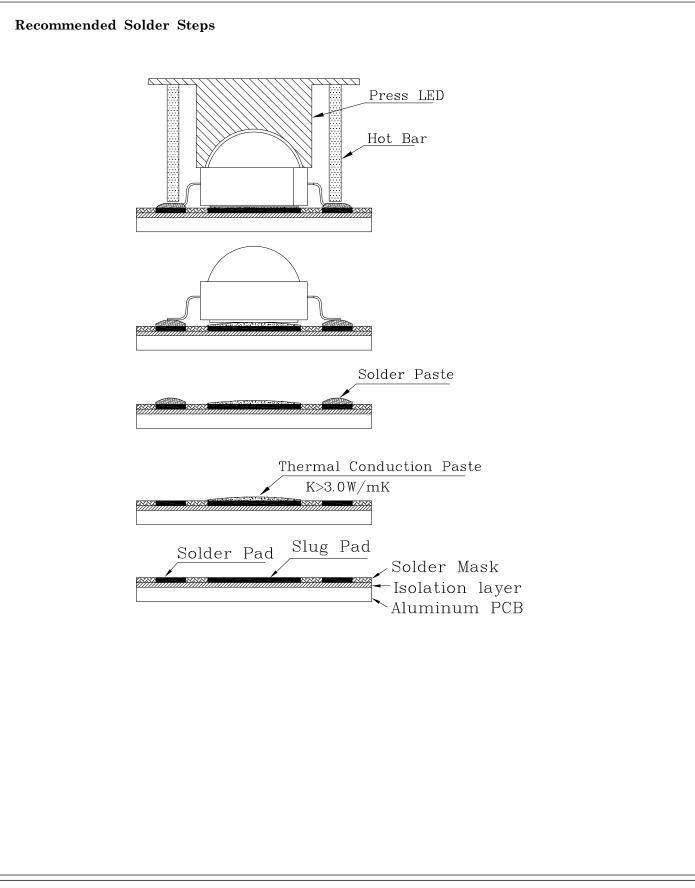
Note: Accuracy may depend on the sorting parameters.

Drawing No: XDSB0866

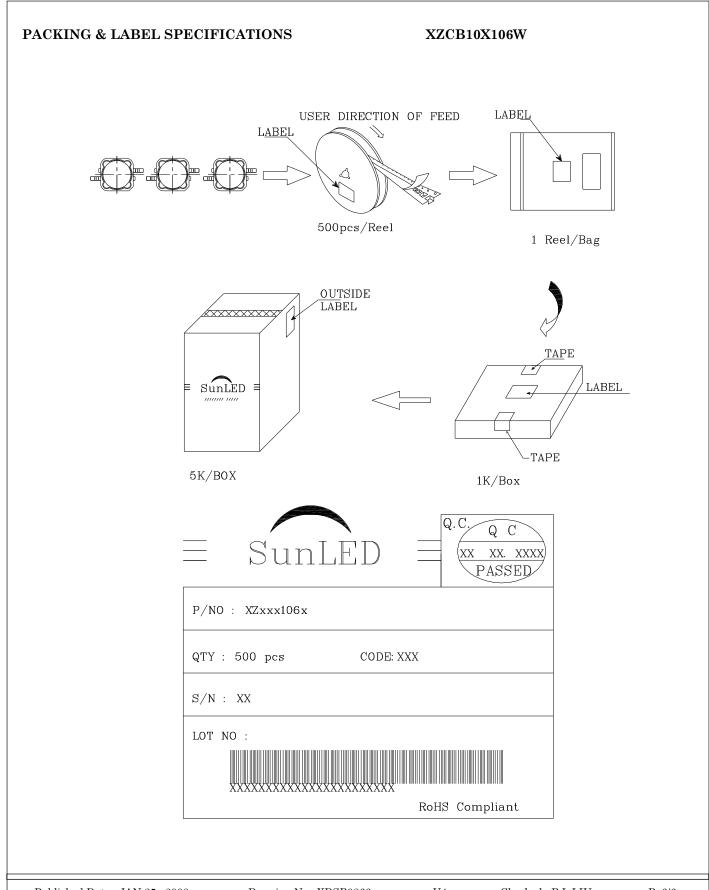
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