



### Selection Guide

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

### Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Value	Unit
Power dissipation	P <sub>t</sub>	1.25	W
Junction temperature	T <sub>J</sub>	110	°C
Operating Temperature	T <sub>op</sub>	-40 To +100	°C
Storage Temperature	T <sub>stg</sub>	-40 To +100	°C
DC Forward Current [1]	I <sub>F</sub>	350	mA
Peak Forward Current [3]	I <sub>FM</sub>	500	mA
Thermal resistance [1]	R <sub>th j-slug</sub>	9	°C/W
Electrostatic Discharge Threshold (HBM)		8000	V
Iron Soldering [4]	350°C For 3 Seconds		

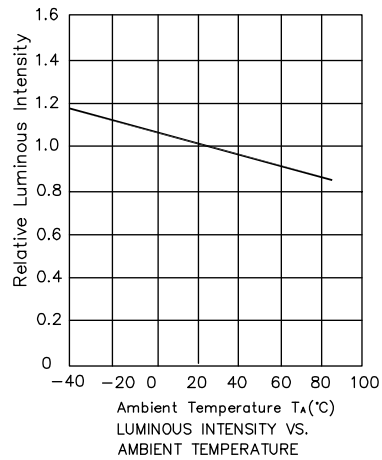
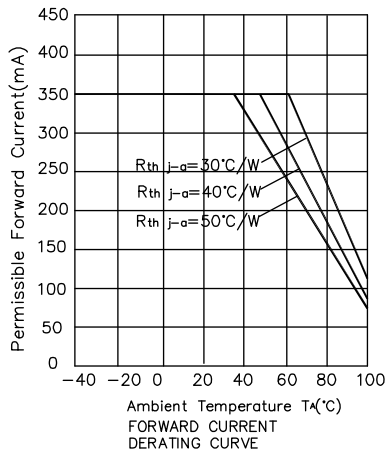
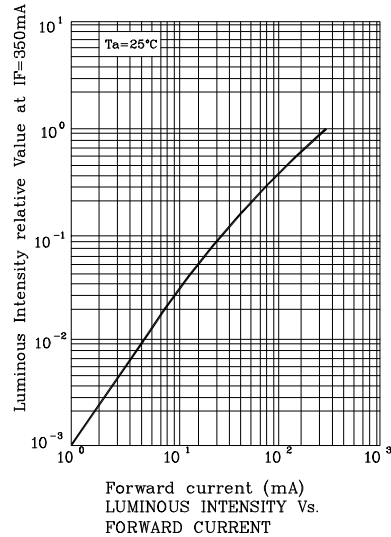
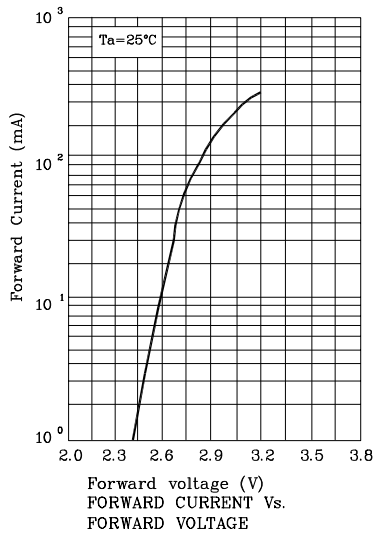
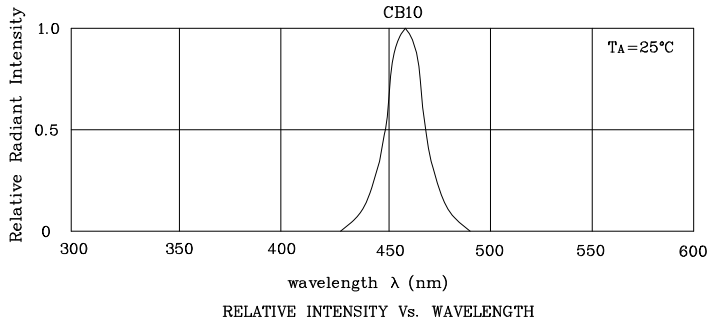
Notes:

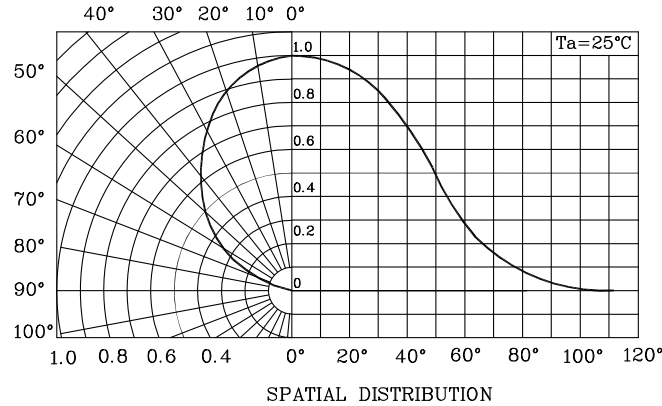
1. Metal Core PCB is mounted on the heat Fins.
2. θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
3. 1/10 Duty Cycle, 0.1ms Pulse Width.
4. 1.29mm below package base.

### Electrical / Optical Characteristics at TA=25°C

Parameter	Symbol	Value	Unit
Wavelength at peak emission IF=350mA [Typ.]	λ peak	452	nm
Dominant 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.]	V <sub>F</sub>	2.8	V
Forward Voltage IF=350mA [Typ.]		3.2	
Forward Voltage IF=350mA [Max.]		3.6	
Temperature coefficient of I <sub>peak</sub> IF=350mA, -10°C ≤ T ≤ 100°C [Typ.]	TC λ peak	0.2	nm/°C
Temperature coefficient of I <sub>dom</sub> IF=350mA, -10°C ≤ T ≤ 100°C [Typ.]	TC λ dom	0.1	nm/°C
Temperature coefficient of V <sub>F</sub> IF=350mA, -10 ° C ≤ T ≤ 100 ° C [Typ.]	TC <sub>V</sub>	-3.2	mV/° C

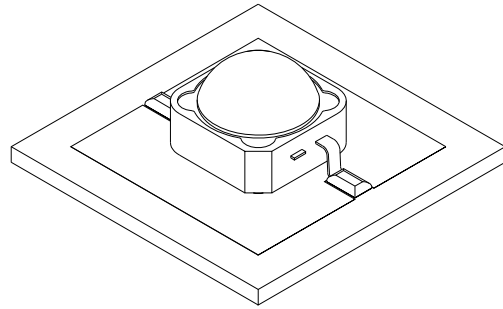
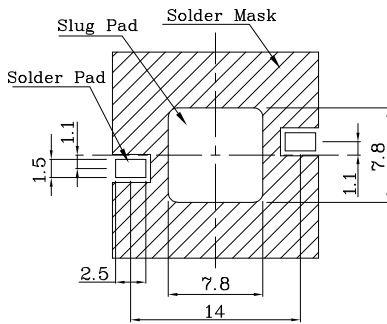
XZCB10X106W



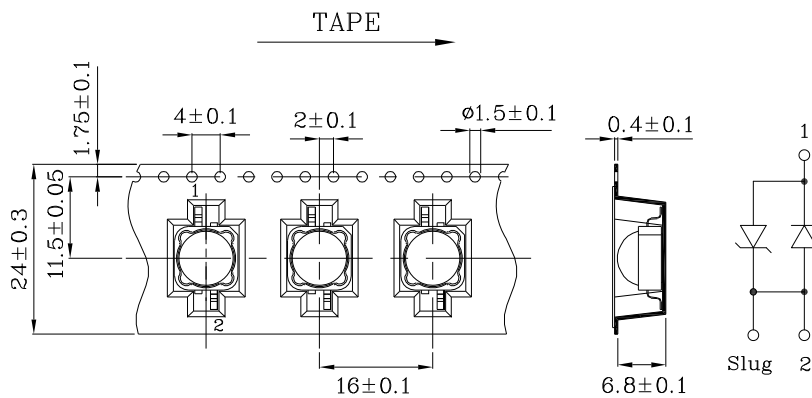


**Recommended Soldering Pattern  
(Units : mm; Tolerance: ±0.1)**

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



❖ **Tape Specification (Units : mm)**



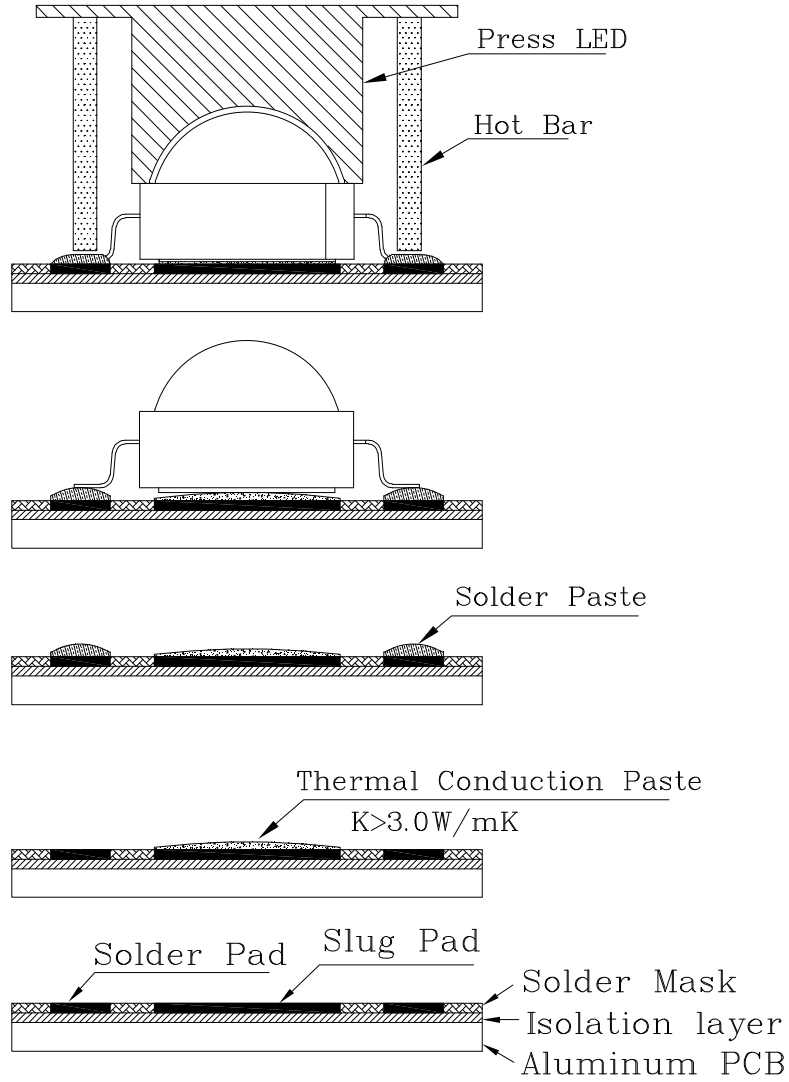
Remarks:

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

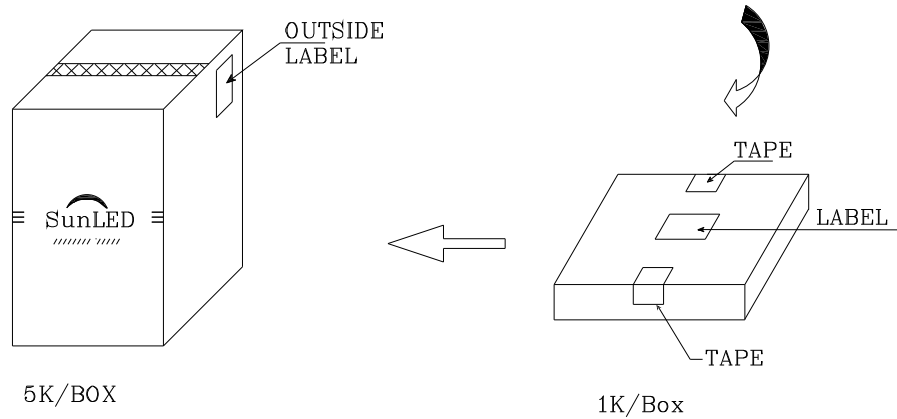
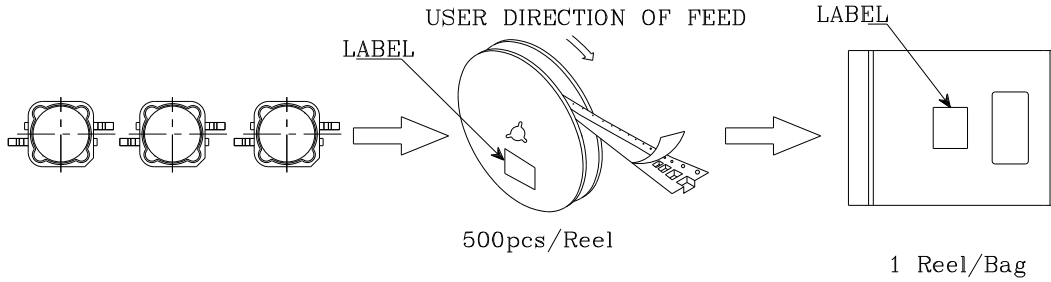
Note: Accuracy may depend on the sorting parameters.


**Recommended Solder Steps**



**PACKING & LABEL SPECIFICATIONS**

**XZCB10X106W**



P/NO : XZxxx106x	
QTY : 500 pcs	CODE: XXX
S/N : XX	
LOT NO :	
 XXXXXXXXXXXXXXXXXXXXXXXXXXXX	
RoHS Compliant	