



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.



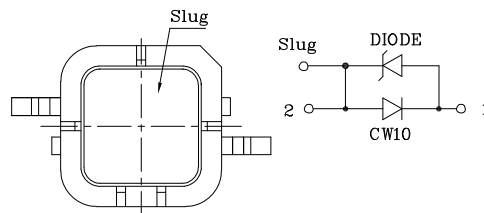
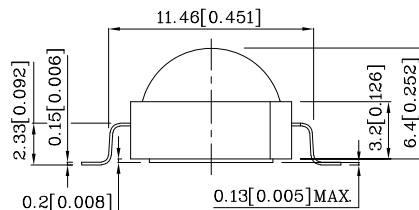
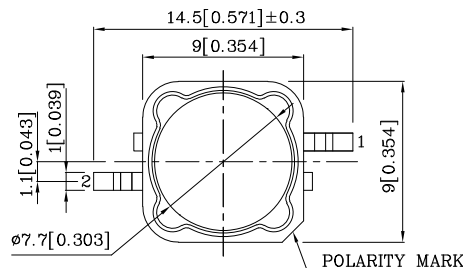
Applications

- 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 ± 0.25(0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

Selection Guide

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=350mA) cd		Luminous Flux (IF=350mA) lm		Viewing Angle 2 θ 1/2 [2]
				min.	typ.	min.	typ.	
XZCW10X106W	White	InGaAlN	Water Clear	16	22	65	75	100°

Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Value	Unit
Power Dissipation	P _t	1.25	W
Junction Temperature	T _J	110	°C
Operating Temperature	T _{op}	-40 To +100	°C
Storage Temperature	T _{stg}	-40 To +100	°C
DC Forward Current [1]	I _F	350	mA
Peak Forward Current [3]	I _{FM}	500	mA
Thermal Resistance [1]	R _{th j-slug}	9	°C/W
Electrostatic Discharge Threshold (HBM)		8000	V
Iron Soldering [4]	350°C For 3 Seconds		

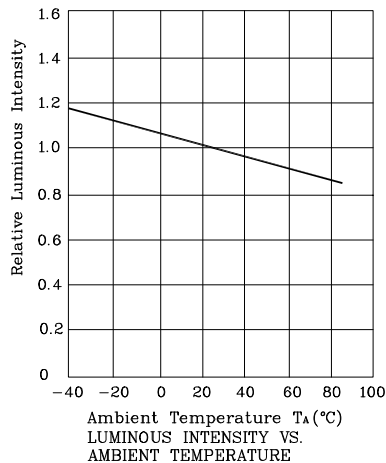
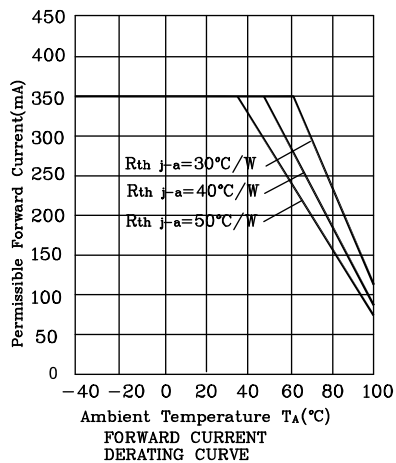
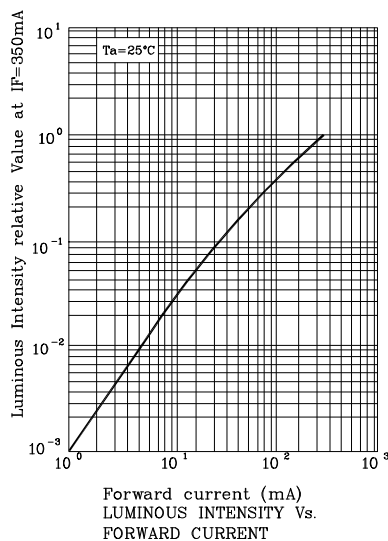
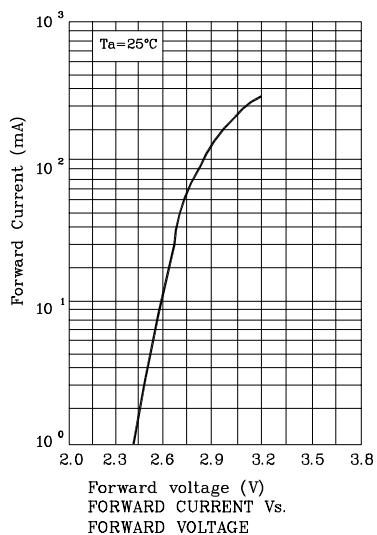
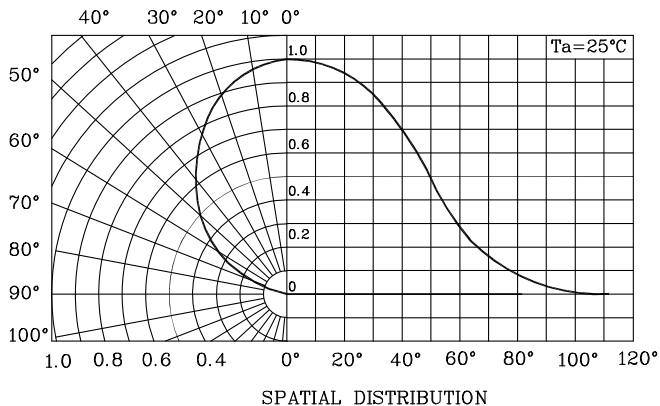
Notes:

- 1.Results from mounting on MCPCB.
- 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 distance from solder joint to package.

Electrical / Optical Characteristics at TA=25°C

Parameter	Symbol	Value	Unit
Chromaticity Coordinate x Acc.to CIE1931 I _F =350mA [Typ.]	X	0.31	-
Chromaticity Coordinate y Acc.to CIE1931 I _F =350mA [Typ.]	Y	0.31	-
Forward Voltage I _F =350mA [Min.]	V _F	2.8	V
Forward Voltage I _F =350mA [Typ.]		3.2	
Forward Voltage I _F =350mA [Max.]		3.6	
Temperature Coefficient Of x I _F =350mA, -10 ° C ≤ T ≤ 100 ° C [Typ.]	TC _x	0.15	10 ⁻³ /° C
Temperature Coefficient Of y I _F =350mA, -10 ° C ≤ T ≤ 100 ° C [Typ.]	TC _y	0.13	10 ⁻³ /° C
Temperature Coefficient Of V _F I _F =350mA, -10 ° C ≤ T ≤ 100 ° C [Typ.]	TC _v	-3.2	mV/° C

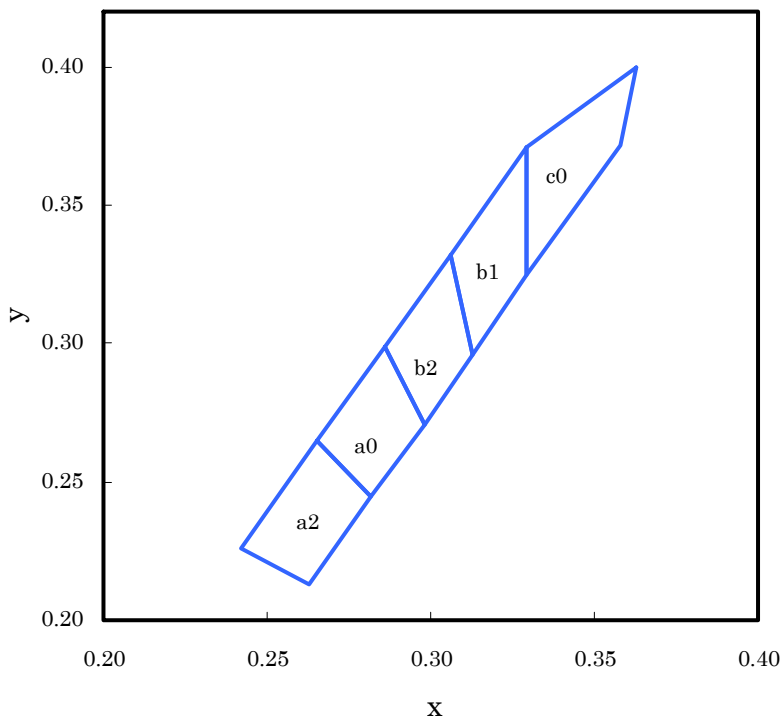
XZCW10X106W





XZCW10X106W

White CIE



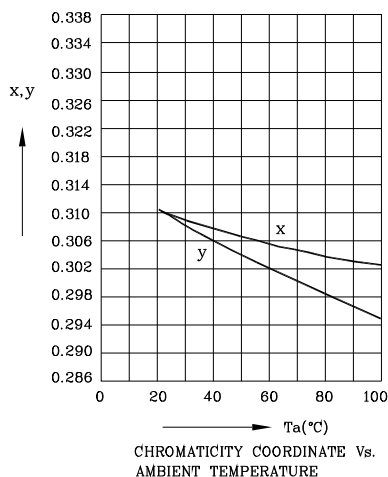
Rank a2				
X	0.263	0.282	0.265	0.242
Y	0.213	0.245	0.265	0.226

Rank a0				
X	0.282	0.298	0.286	0.265
Y	0.245	0.271	0.299	0.265

Rank b2				
X	0.298	0.313	0.306	0.286
Y	0.271	0.296	0.332	0.299

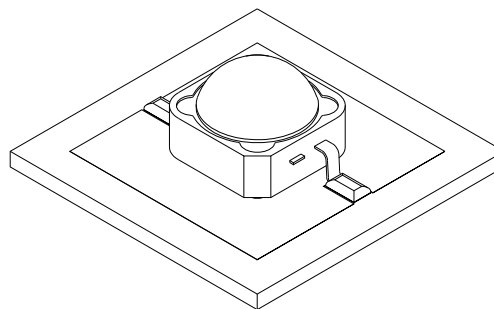
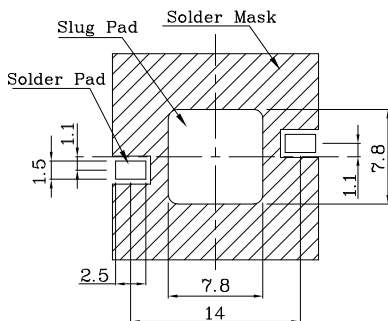
Rank b1				
X	0.313	0.329	0.329	0.306
Y	0.296	0.325	0.371	0.332

Rank c0				
X	0.329	0.358	0.363	0.329
Y	0.325	0.372	0.400	0.371

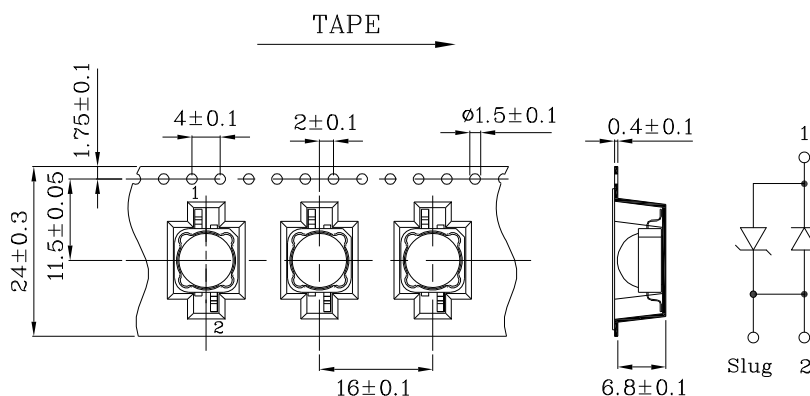


Recommended Soldering Pattern (Units : mm; Tolerance: ±0.1)

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



❖ **Tape Specification (Units : mm)**



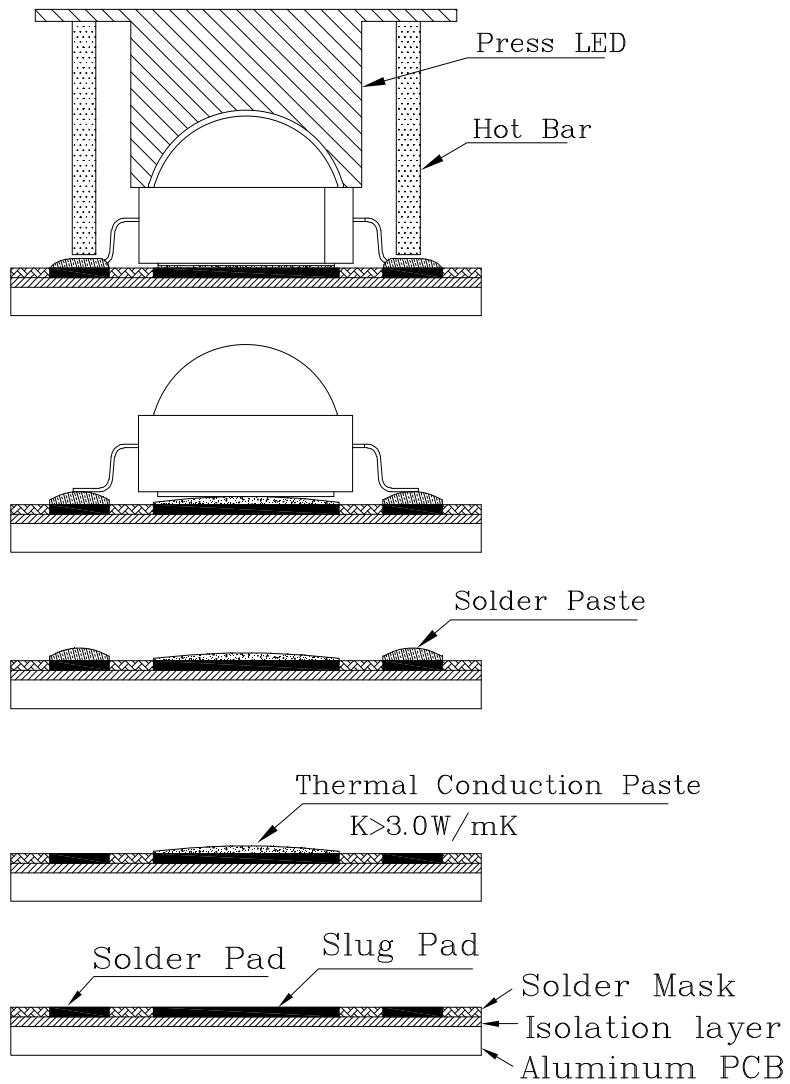
Remarks:

If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or chromaticity), the typical accuracy of the sorting process is as follows:

1. Measurement tolerance of the chromaticity coordinates is ±0.02.
2. Luminous intensity / luminous flux: +/-15%
3. Forward Voltage: +/-0.1V

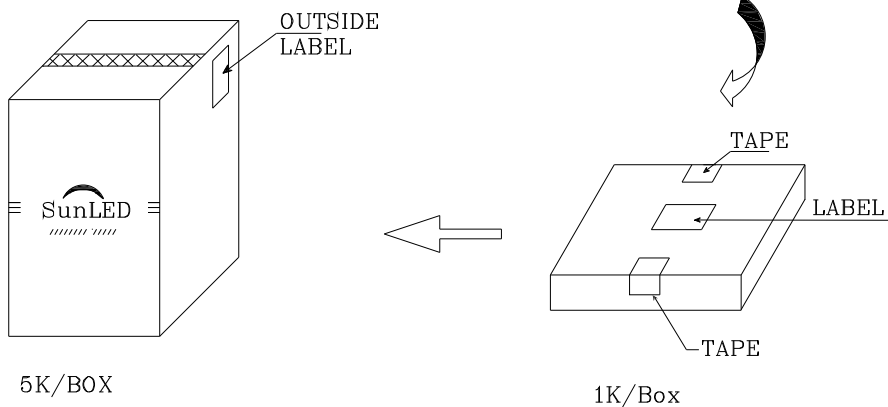
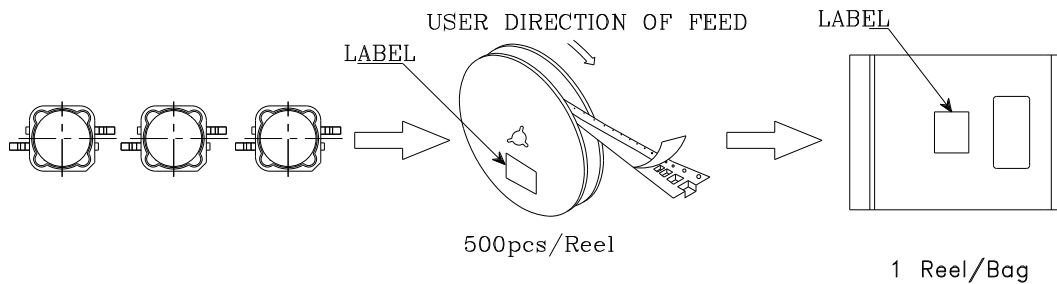
Note: Accuracy may depend on the sorting parameters.


Recommended Solder Steps



PACKING & LABEL SPECIFICATIONS

XZCW10X106W



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