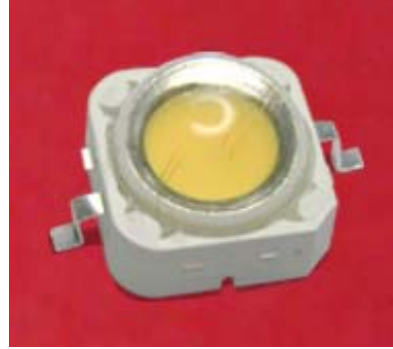


PRELIMINARY SPEC



**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.



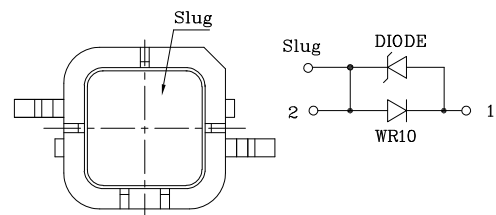
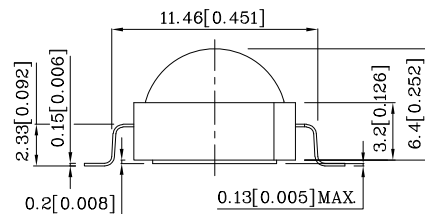
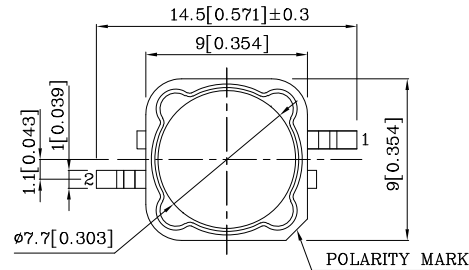
**Applications**

- 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.	
XZWR10X106W	Warm White	InGaAlN	Water Clear	10	16	45	60	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	Top	-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]	Rth j-slug	9	°C/W
Electrostatic Discharge Threshold (HBM)		8000	V
Iron Soldering [4]	350°C For 3 Seconds		

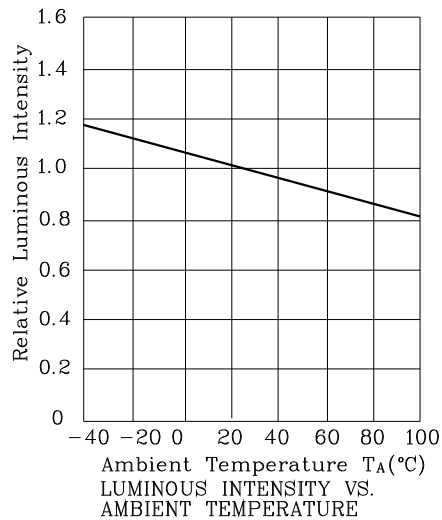
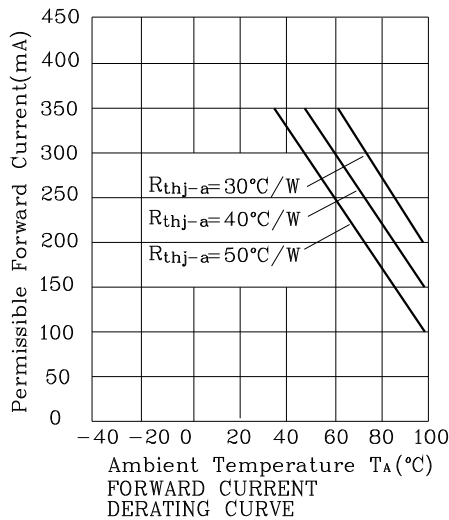
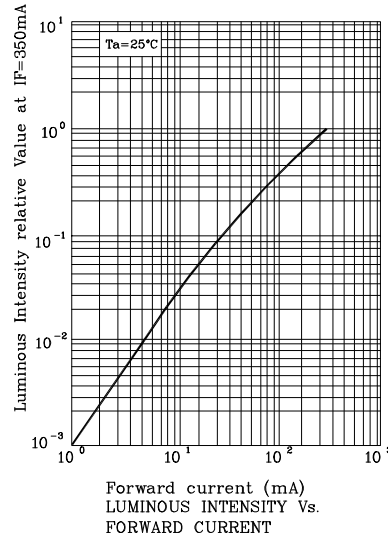
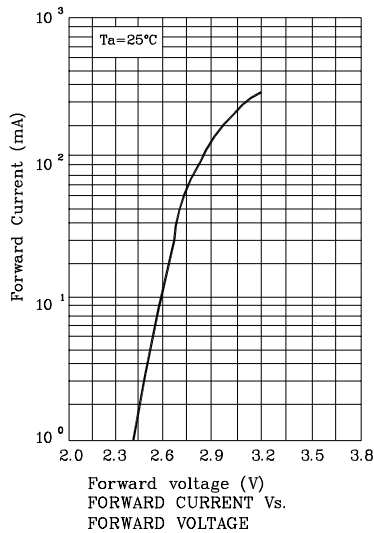
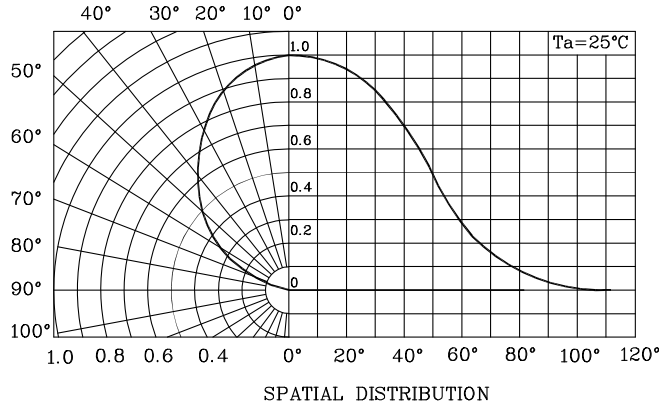
Notes:

1. Metal Core PCB is mounted on the heat Fins.
2. 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

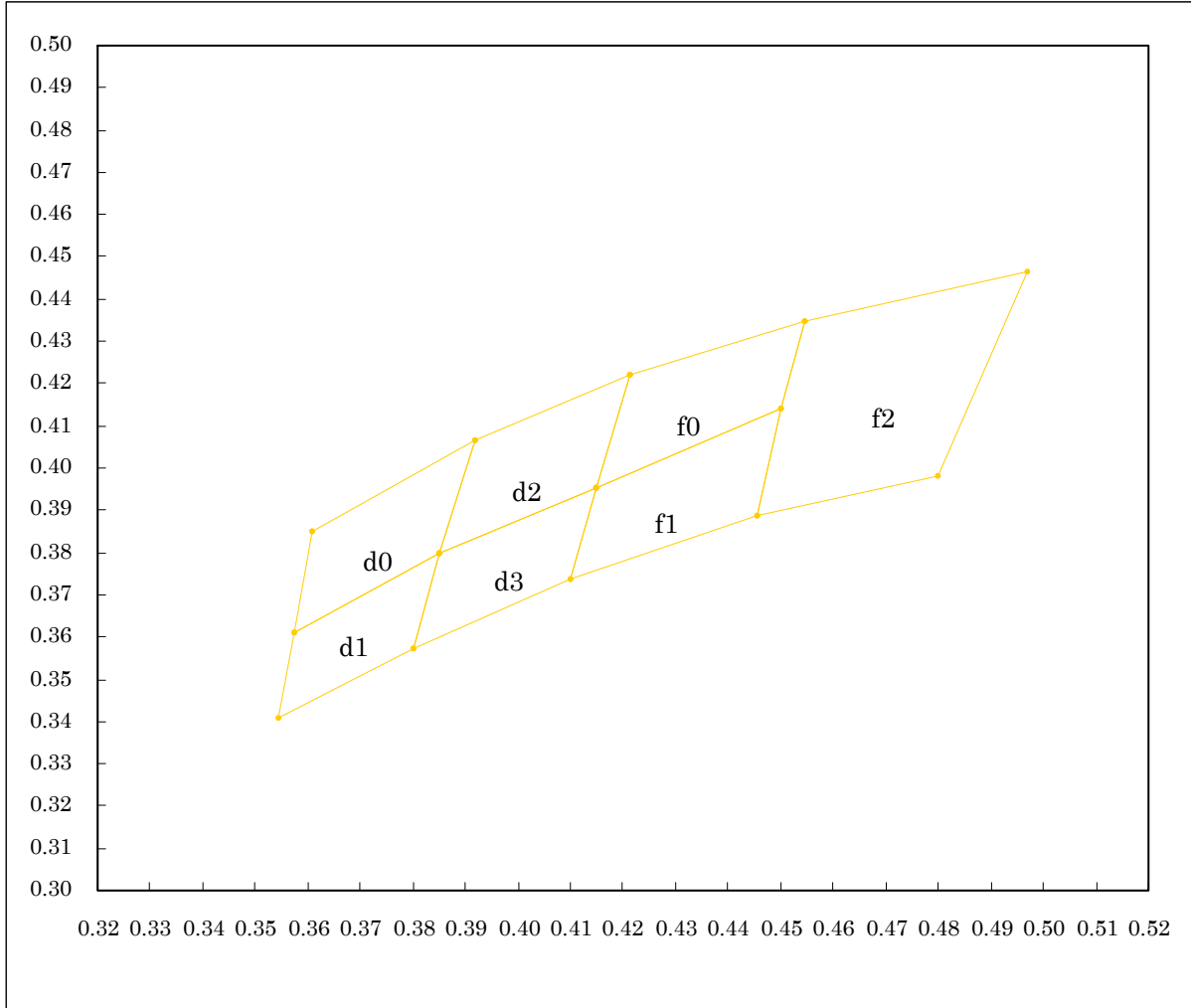
Parameter	Symbol	Value	Unit
Chromaticity coordinate x acc.to CIE1931 IF=350mA [Typ.]	X	0.41	-
Chromaticity coordinate y acc.to CIE1931 IF=350mA [Typ.]	Y	0.39	-
Forward Voltage IF=350mA [Min.]	VF	2.8	V
Forward Voltage IF=350mA [Typ.]		3.2	
Forward Voltage IF=350mA [Max.]		3.6	
Temperature coefficient of x IF=350mA, -10 ° C ≤ T ≤ 100 ° C [Typ.]	TCx	-0.15	10 <sup>-3</sup> /° C
Temperature coefficient of y IF=350mA, -10 ° C ≤ T ≤ 100 ° C [Typ.]	TCy	-0.13	10 <sup>-3</sup> /° C
Temperature coefficient of VF IF=350mA, -10 ° C ≤ T ≤ 100 ° C [Typ.]	TCv	-3.2	mV/° C

XZWR10X106W



XZWR10X106W

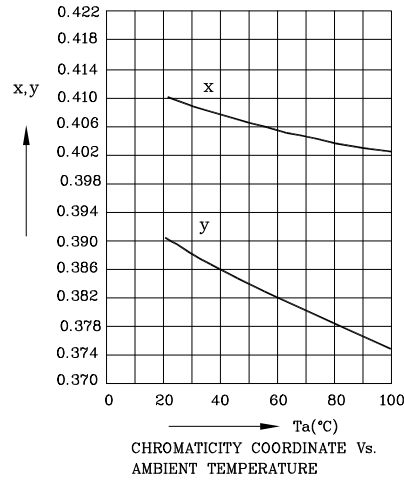
Warm White CIE



d0					
x	0.3610	0.3575	0.3870	0.3942	
y	0.3850	0.3612	0.3820	0.4068	
Reference CCT : 3900~4700K					
d3					
x	0.4254	0.3870	0.3800	0.4119	
y	0.4044	0.3820	0.3580	0.3730	
Reference CCT : 3200~3900K					
f2					
x	0.4732	0.4600	0.4440	0.4800	0.5165
y	0.4398	0.4152	0.3847	0.3960	0.4510
Reference CCT : 2300~2700K					

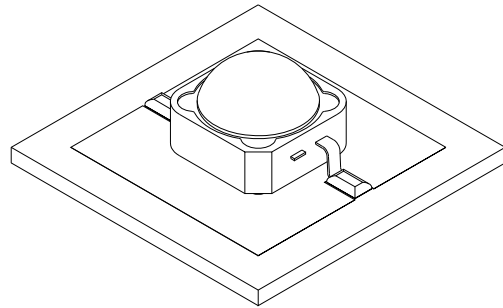
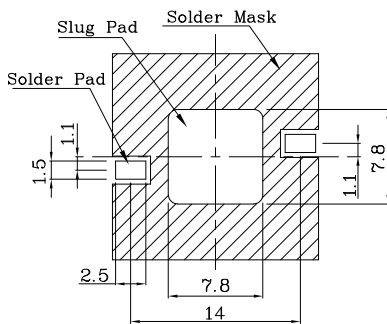
d1				
x	0.3575	0.3545	0.3800	0.3870
y	0.3612	0.3408	0.3580	0.3820
Reference CCT : 3900~4700K				
f0				
x	0.4350	0.4732	0.4600	0.4254
y	0.4260	0.4398	0.4152	0.4044
Reference CCT : 2700~3200K				

d2				
x	0.3870	0.4254	0.4350	0.3942
y	0.3820	0.4044	0.4260	0.4068
Reference CCT : 3200~3900K				
f1				
x	0.4600	0.4254	0.4119	0.4440
y	0.4152	0.4044	0.3730	0.3847
Reference CCT : 2700~3200K				

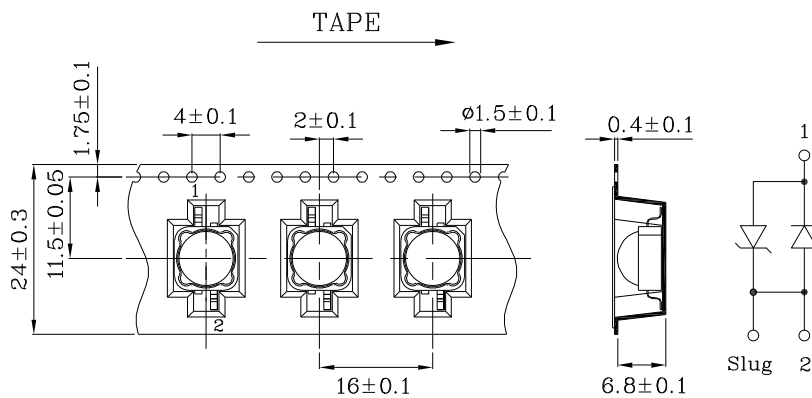


**Recommended Soldering Pattern  
(Units : mm; Tolerance: ±0.1)**

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



❖ **Tape Specification (Units : mm)**



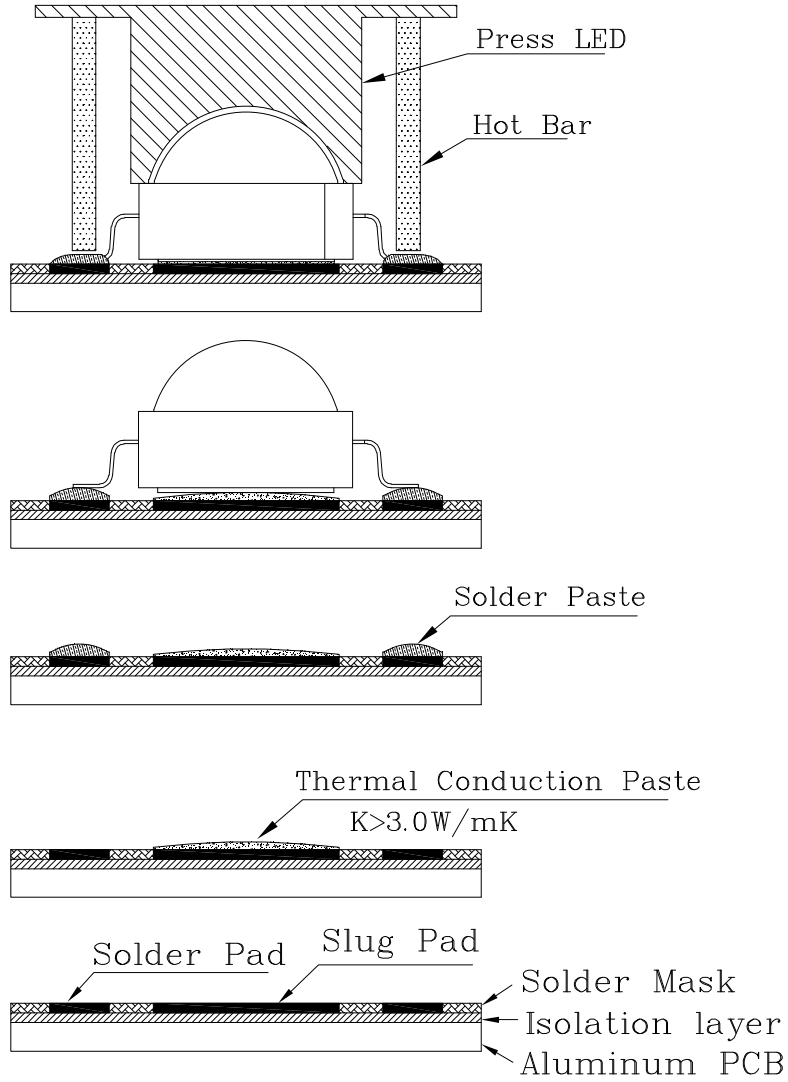
**Remarks:**

If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux), 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

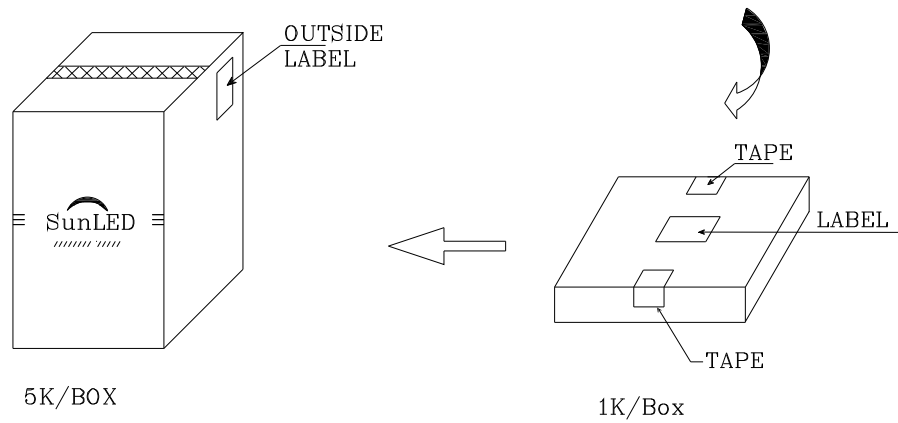
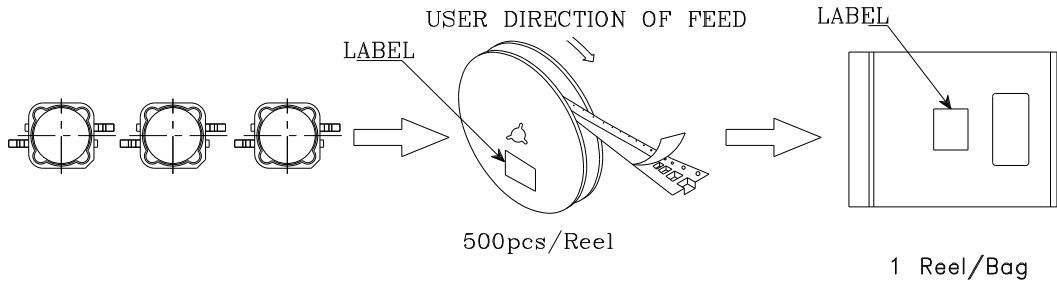
Note: Accuracy may depend on the sorting parameters.


**Recommended Solder Steps**



**PACKING & LABEL SPECIFICATIONS**

**XZWR10X106W**



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