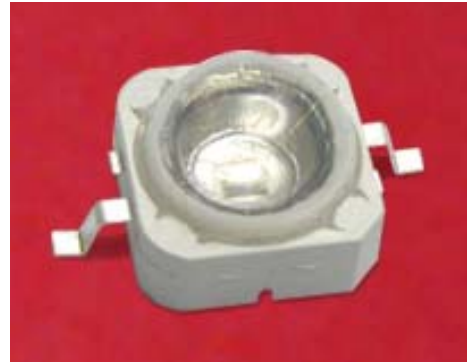


PRELIMINARY SPEC



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.
- LEAD FREE PRODUCT.
- 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.

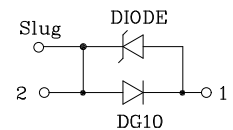
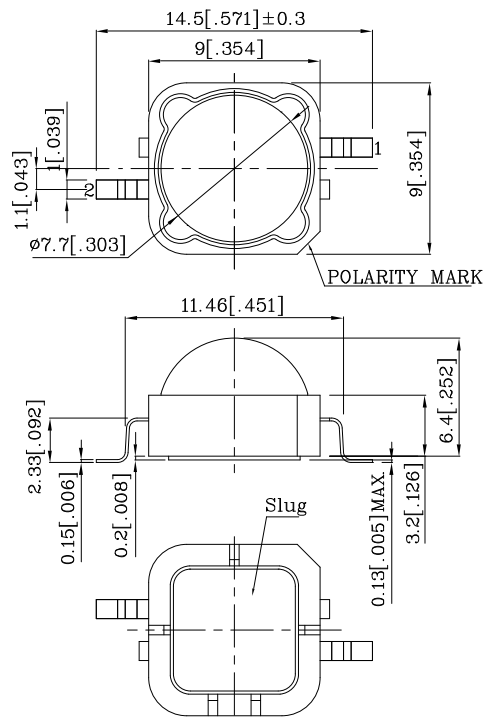
Application Note

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.

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=350mA) cd		Wavelength nm λP	Viewing Angle 2 θ 1/2 [2]
				min.	typ.		
XZDG10X106W	Green	AlInGaN	Water Clear	12	24	520	100°

Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Value	Unit
Power dissipation	Pt	1.33	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	

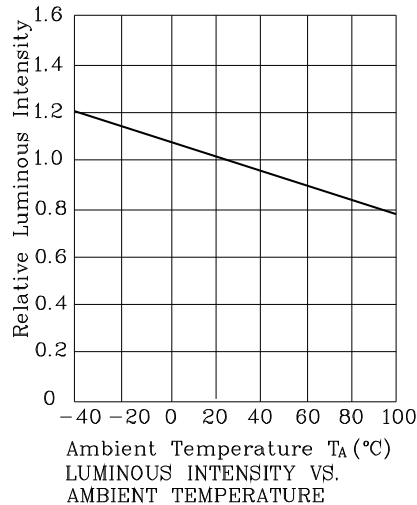
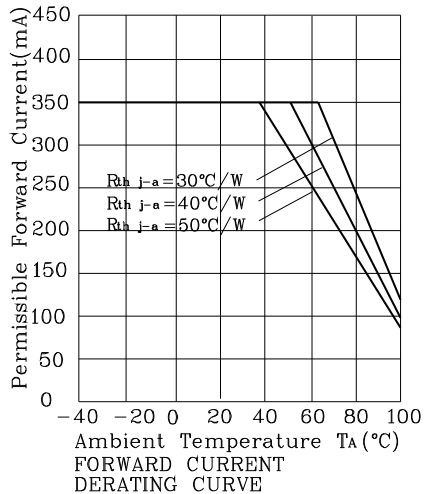
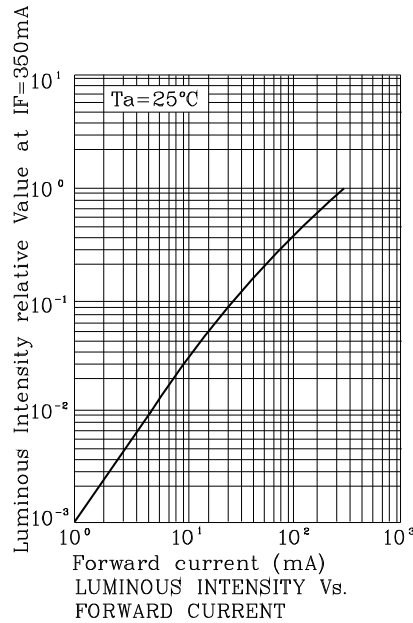
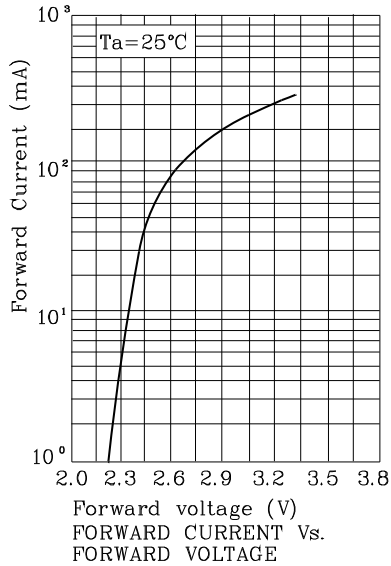
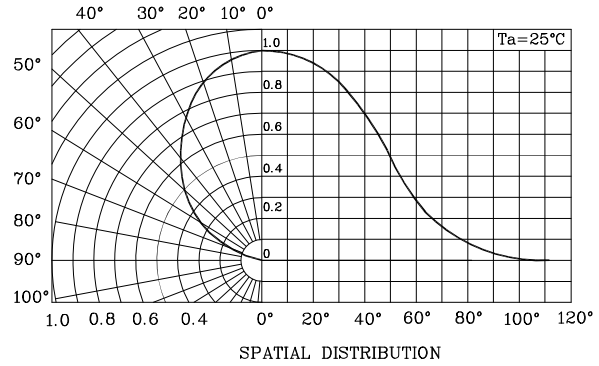
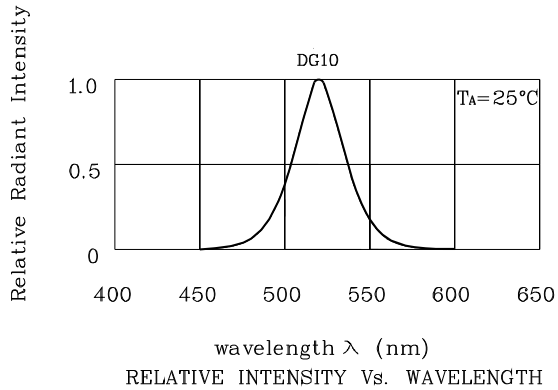
Notes:

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

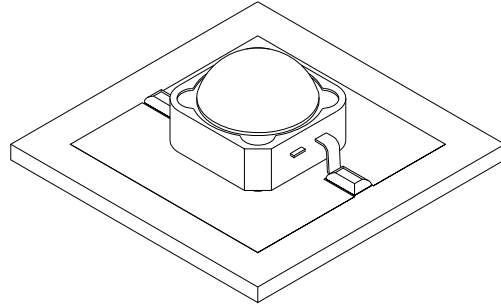
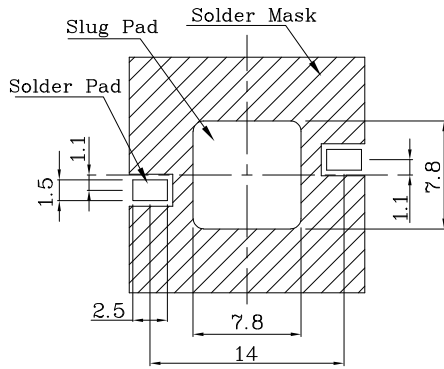
Parameter	Symbol	Value	Unit
Wavelength at peak emission IF=350mA [Typ.]	λ peak	520	nm
Dominant Wavelength IF=350mA [Typ.]	λ dom	530	nm
Spectral bandwidth at 50% Φ REL MAX IF=350mA [Typ.]	$\Delta\lambda$	35	nm
Forward Voltage IF=350mA [Min.]	VF	2.7	V
Forward Voltage IF=350mA [Typ.]		3.3	
Forward Voltage IF=350mA [Max.]		3.8	
Temperature coefficient of λ peak IF=350mA, -10°C ≤ T ≤ 100°C [Typ.]	TC λ peak	0.16	nm/°C
Temperature coefficient of λ dom IF=350mA, -10°C ≤ T ≤ 100°C [Typ.]	TC λ dom	0.14	nm/°C
Temperature coefficient of VF IF=350mA, -10°C ≤ T ≤ 100°C [Typ.]	TCV	-2.26	mV/°C

XZDG10X106W

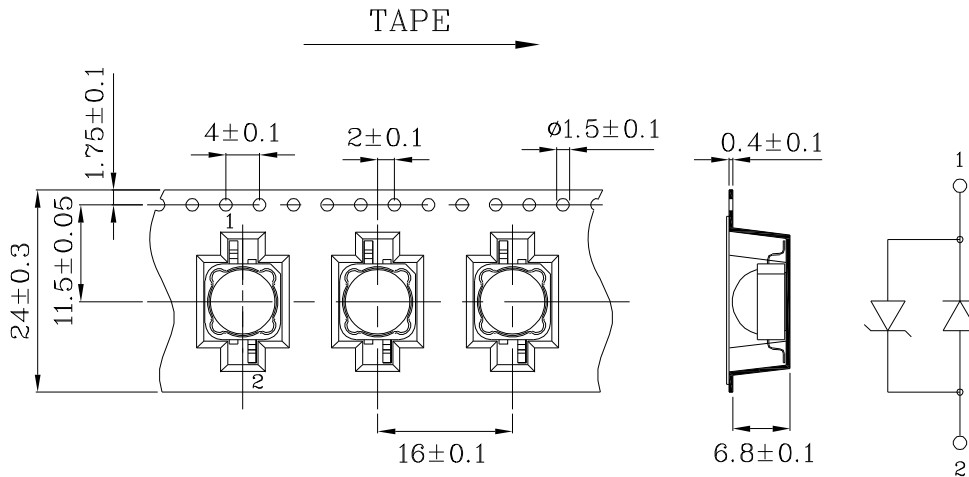


Recommended Soldering Pattern
(Units : mm; Tolerance: ± 0.1)

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



❖ **Tape Specification (Units : mm)**



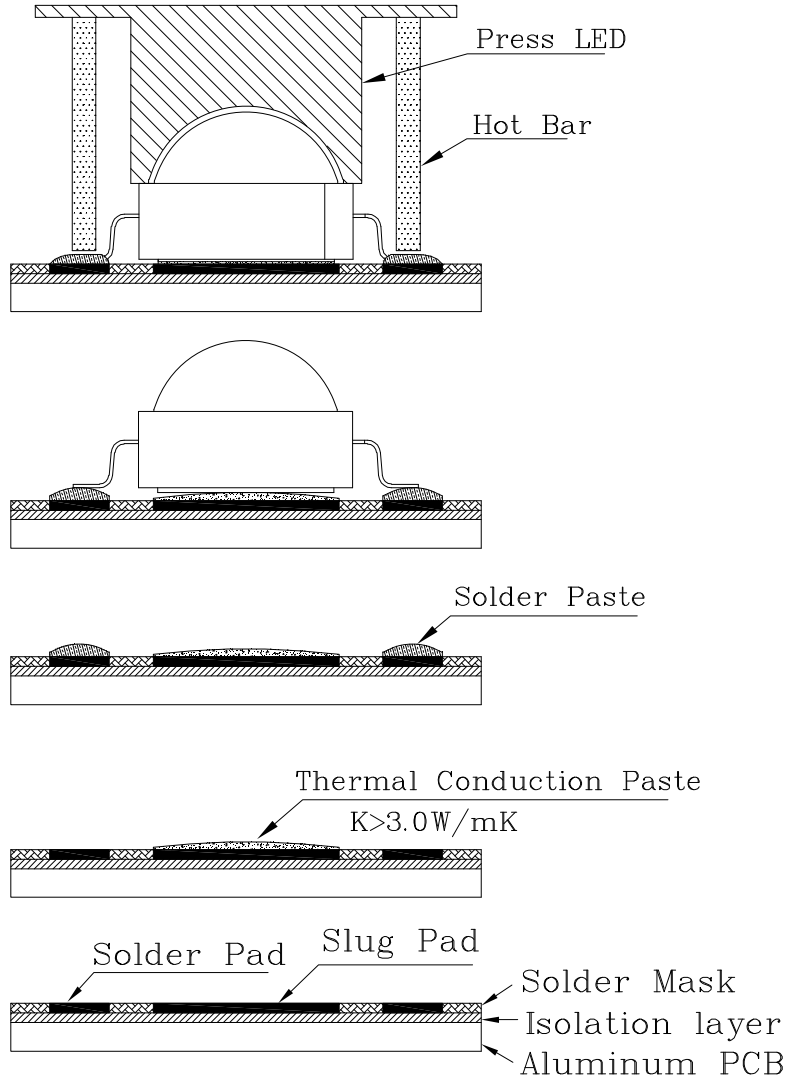
Remarks:

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: $\pm 1\text{nm}$
2. Luminous Intensity/ Luminous Flux: $\pm 15\%$
3. Forward Voltage: $\pm 0.1\text{V}$

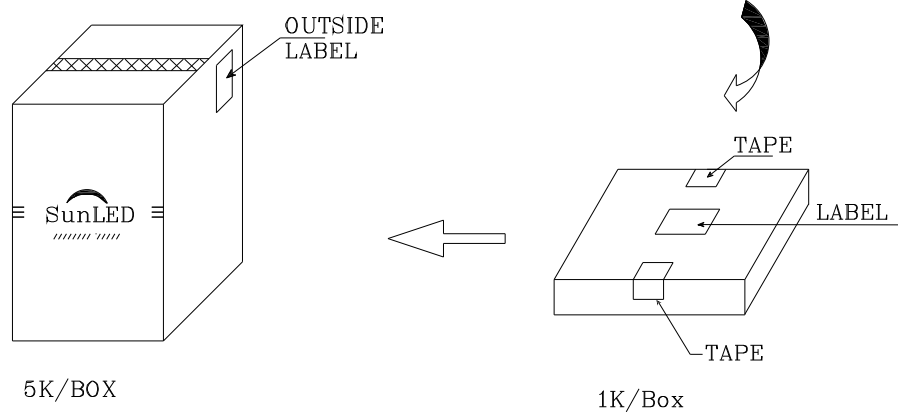
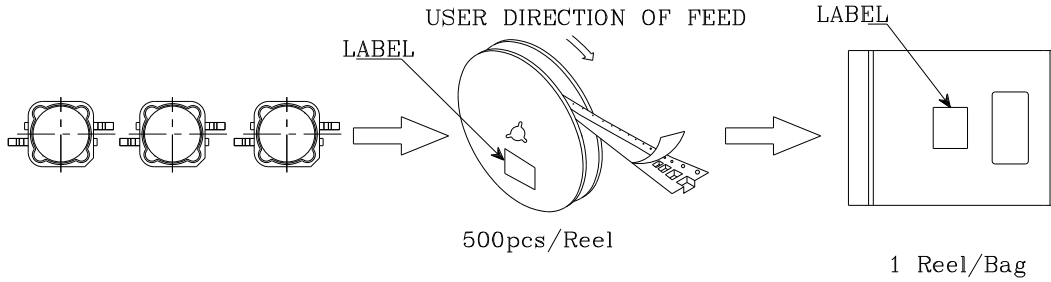
Note: Accuracy may depend on the sorting parameters.


Recommended Solder Steps



PACKING & LABEL SPECIFICATIONS

XZDG10X106W



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