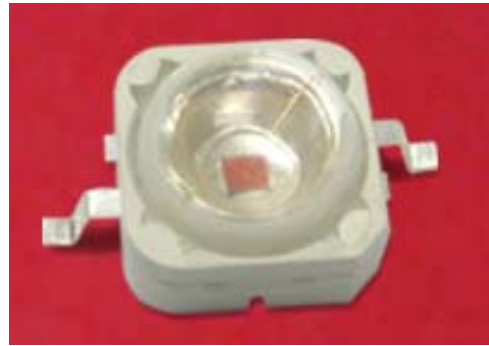


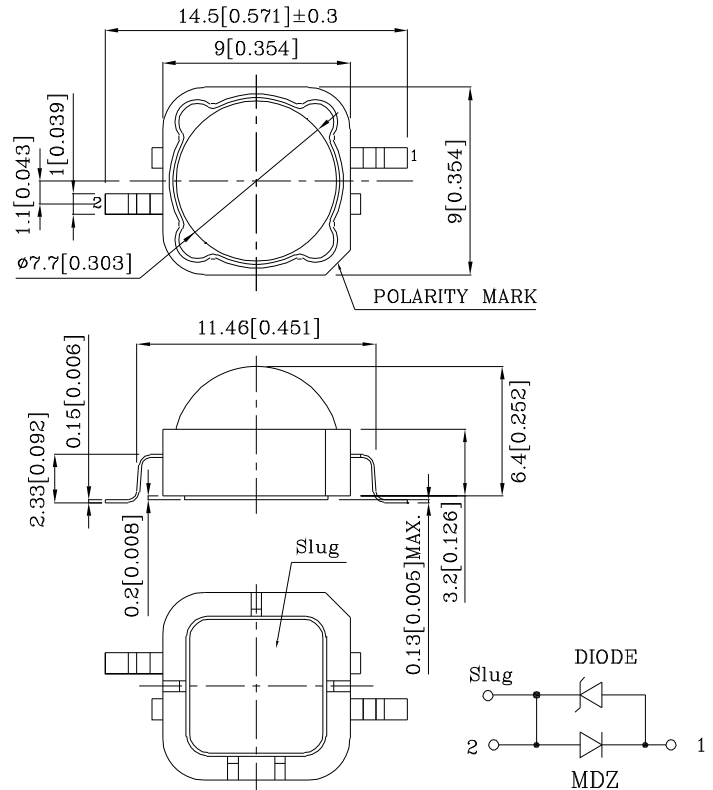
PRELIMINARY SPEC

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.



Outline Drawings



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.

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=500mA)[1] cd		Viewing Angle 2 θ 1/2 [2]
				min.	typ.	
ZMDZ106W	Reddish-Orange	AlGaInP	Water Clear	12	17	100°

Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Value	Unit
Power Dissipation	P _t	1.62	mW
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	500	mA
Peak Forward Current [3]	I _{FM}	700	mA
Thermal Resistance [1]	R _{th j-slug}	12	°C/W
Iron Soldering [4]	350°C For 3 Seconds		
Electrostatic Discharge Threshold (HBM)		8000	V

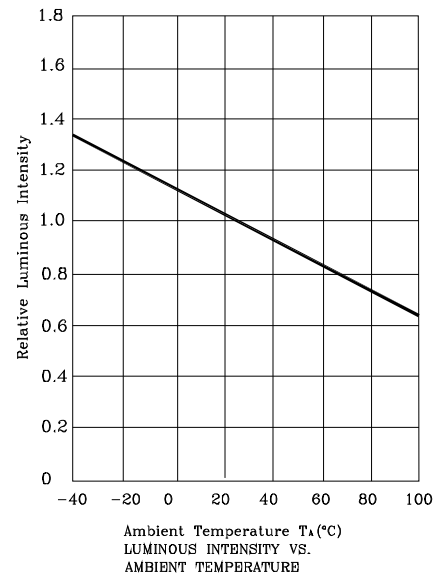
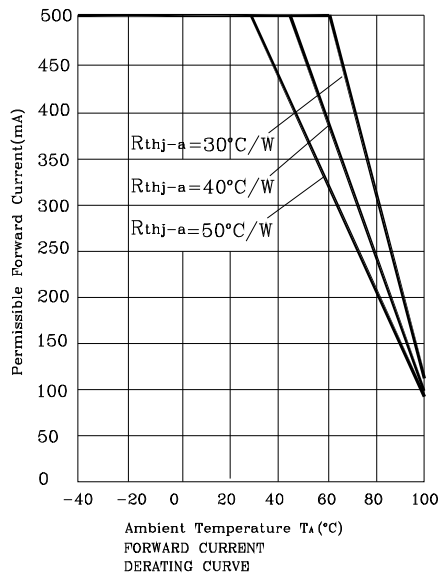
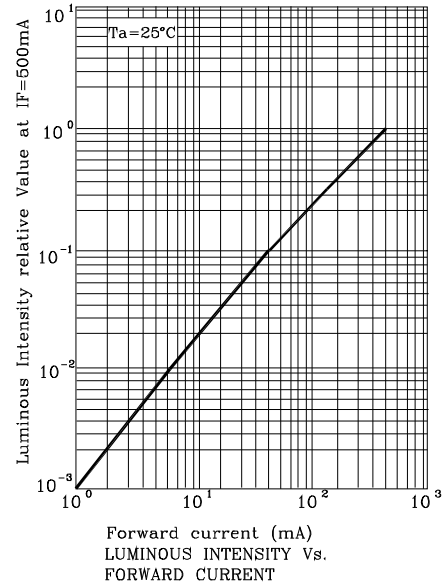
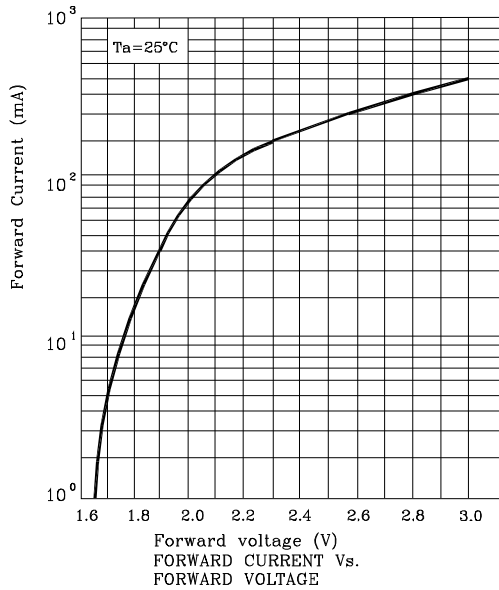
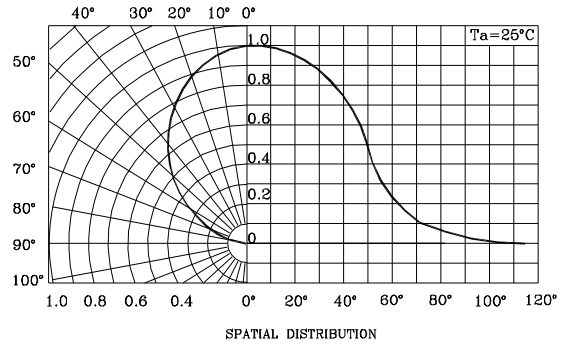
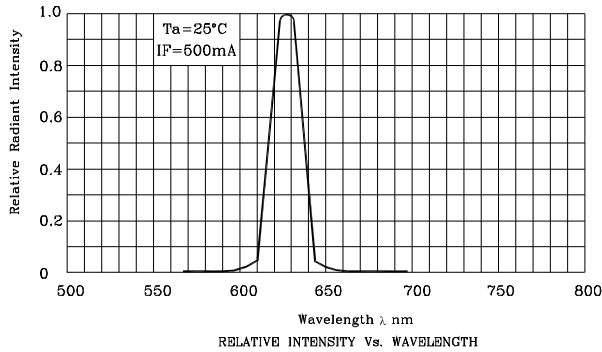
Notes:

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=500mA [Typ.]	λ peak	628	nm
Dominant Wavelength IF=500mA [Typ.]	λ dom	623	nm
Spectral bandwidth at 50%Φ REL MAX IF=500mA [Typ.]	Δλ	22	nm
Forward Voltage (IF=500mA) [Min.]	V _F	2.4	V
Forward Voltage (IF=500mA) [Typ.]		3.0	
Forward Voltage (IF=500mA) [Max.]		3.6	
Temperature coefficient of λ peak IF=350mA, -10°C ≤ T ≤ 100°C [Typ.]	TC λ peak	0.08	nm/°C
Temperature coefficient of λ dom IF=350mA, -10°C ≤ T ≤ 100°C [Typ.]	TC λ dom	0.03	nm/°C
Temperature coefficient of V _F IF=350mA, -10°C ≤ T ≤ 100°C [Typ.]	TC _V	-2.8	mV/°C

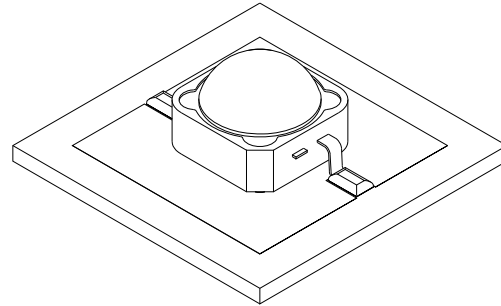
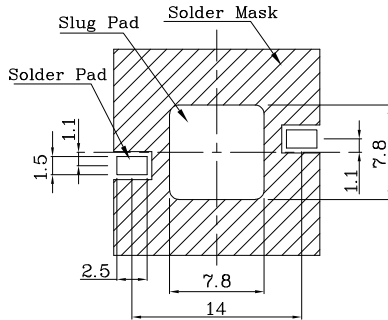
ZMDZ106W



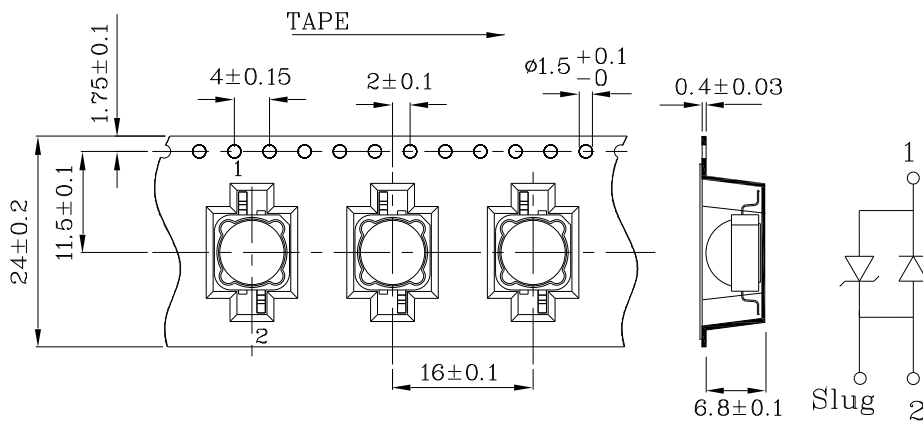


Recommended Soldering Pattern
 (Units : mm; Tolerance: ± 0.1)

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



❖ **Tape Specification (Units : mm)**



Remarks:

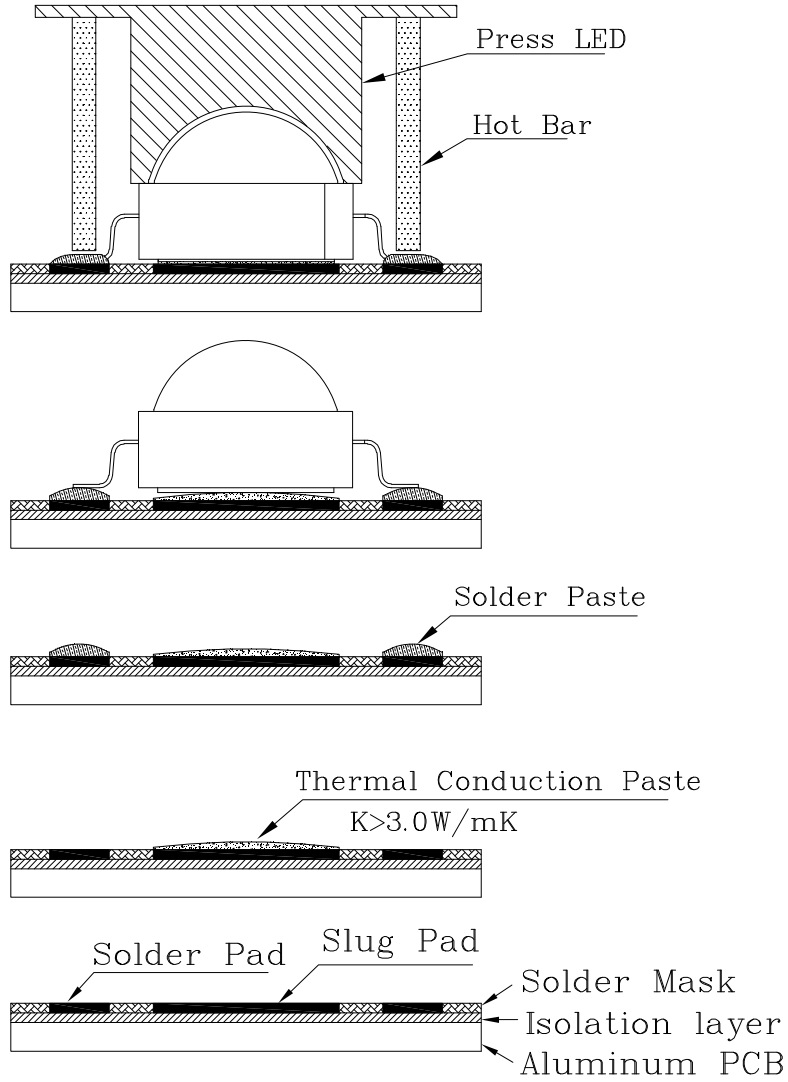
If special sorting is required (e.g. binning based on forward voltage, luminous intensity/ luminous flux or wavelength), the typical accuracy of the sorting process is as follows:

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.



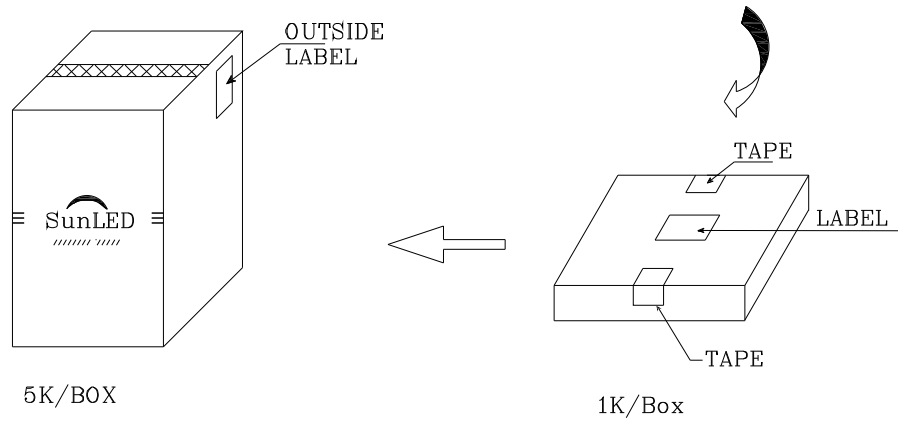
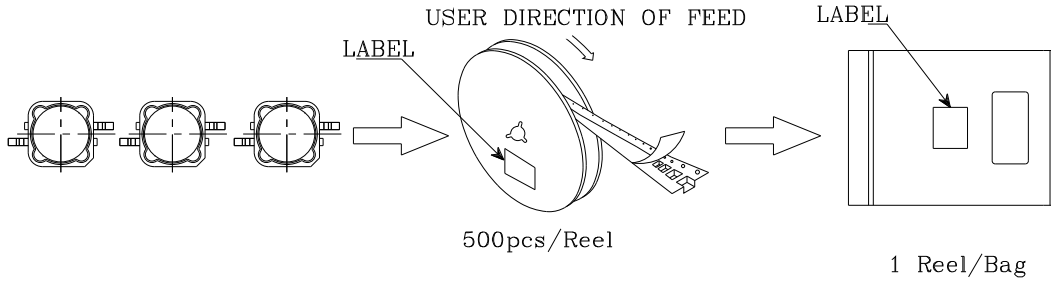

Recommended Solder Steps





PACKING & LABEL SPECIFICATIONS


ZMDZ106W

Q.C. Q C

XX XX XXXX

PASSED

P/NO : Zxxx106x	
QTY : 500 pcs	CODE: XXX
S/N : XX	
LOT NO :	
 XXXXXXXXXXXXXXXXXXXXXXXXXX	
RoHS Compliant	