

#### PRELIMINARY SPEC

**APOLLO** 

# **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.

architectural lighting.

• Interior and exterior automotive lighting. • Substitution of micro incandescent lamps.

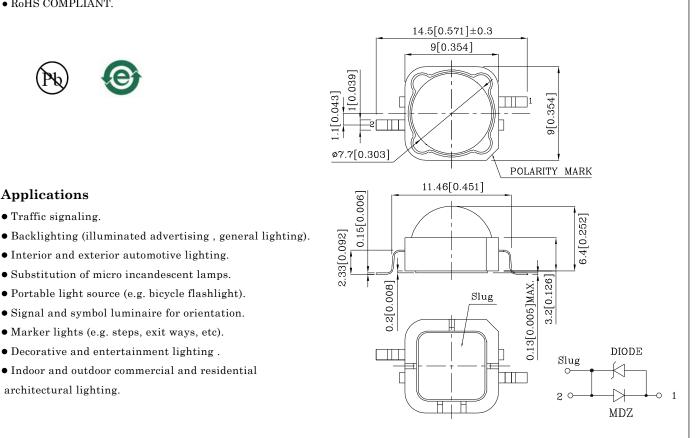
• Portable light source (e.g. bicycle flashlight).

• Signal and symbol luminaire for orientation. • Marker lights (e.g. steps, exit ways, etc). • Decorative and entertainment lighting .

• Indoor and outdoor commercial and residential



### **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.

V4Checked : B.L.LIU



Part Number: XZMDZ106W

# APOLLO

Luminous Viewing Part Emitting Emitting Intensity Lens-color Angle Number Color Material (IF=500mA)[1] 2 θ 1/2 [2]  $\operatorname{cd}$ min. typ. XZMDZ106W Reddish-Orange AlGalnP Water Clear 1217100°

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

Parameter	Symbol	Value	Unit
Power Dissipation	$\mathbf{Pt}$	1.62	mW
Junction Temperature	TJ	110	°C
Operating Temperature	Top	-40 To +100	°C
Storage Temperature	$\mathrm{T_{stg}}$	-40 To +100	°C
DC Forward Current [1]	IF	500	mA
Peak Forward Current [3]	IFM	700	mA
Thermal Resistance [1]	$\operatorname{Rth}$ 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.

2.0 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.

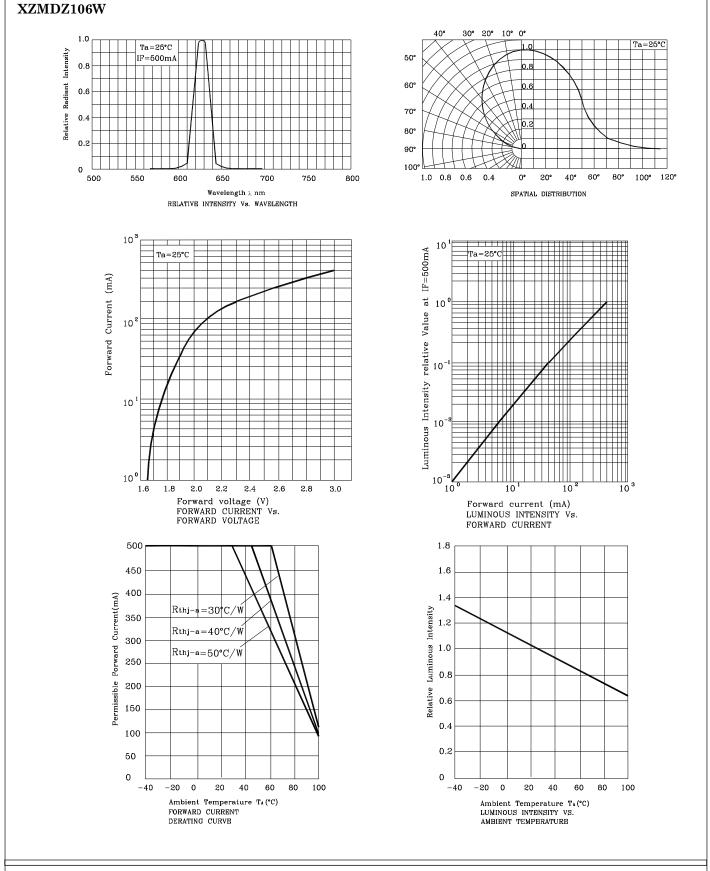
### Electrical / Optical Characteristics at TA=25°C

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 $50\%\Phi$ REL MAX IF= $500mA$ [Typ.]	Δλ	22	nm
Forward Voltage (IF=500mA) [Min.]		2.4	
Forward Voltage (IF=500mA) [Typ.]	$V_{\rm F}$	3.0	V
Forward Voltage (IF=500mA) [Max.]		3.6	
Temperature coefficient of $\lambda$ peak IF=350mA, -10°C $\leq$ T $\leq$ 100°C [Typ.]	${ m TC}\lambda{ m peak}$	0.08	nm/°C
Temperature coefficient of $\lambda$ domIF=350mA, -10°CT $\leq$ 100°C[Typ.]	$\mathrm{TC}\lambdadom$	0.03	nm/°C
Temperature coefficient of VFIF=350mA, $-10^{\circ}C \leq T \leq 100^{\circ}C$ [Typ.]	TCv	-2.8	mV/°C



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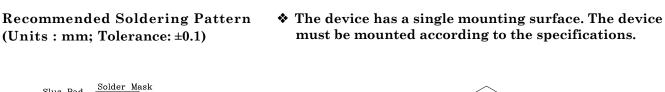
Published Date : JAN 25, 2008

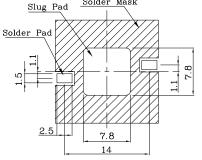
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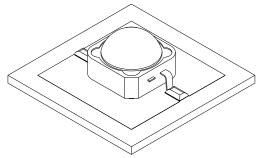


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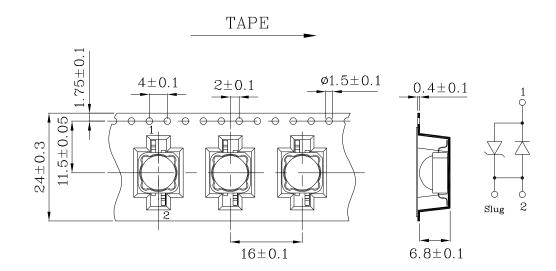
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### Tape Specification (Units : mm)



#### 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

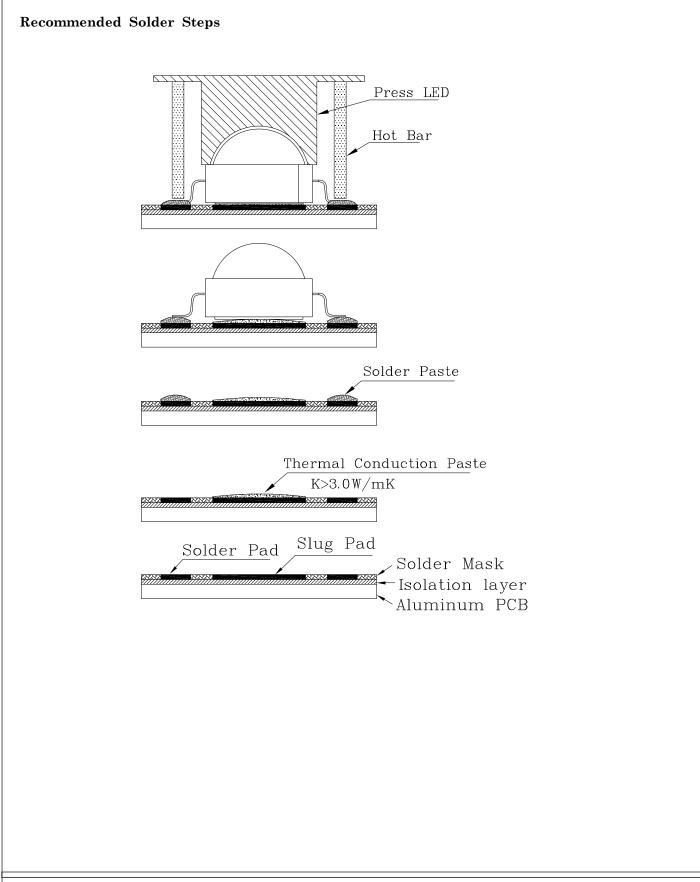
2. Luminous Intensity/ Luminous Flux: +/-15%

3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.



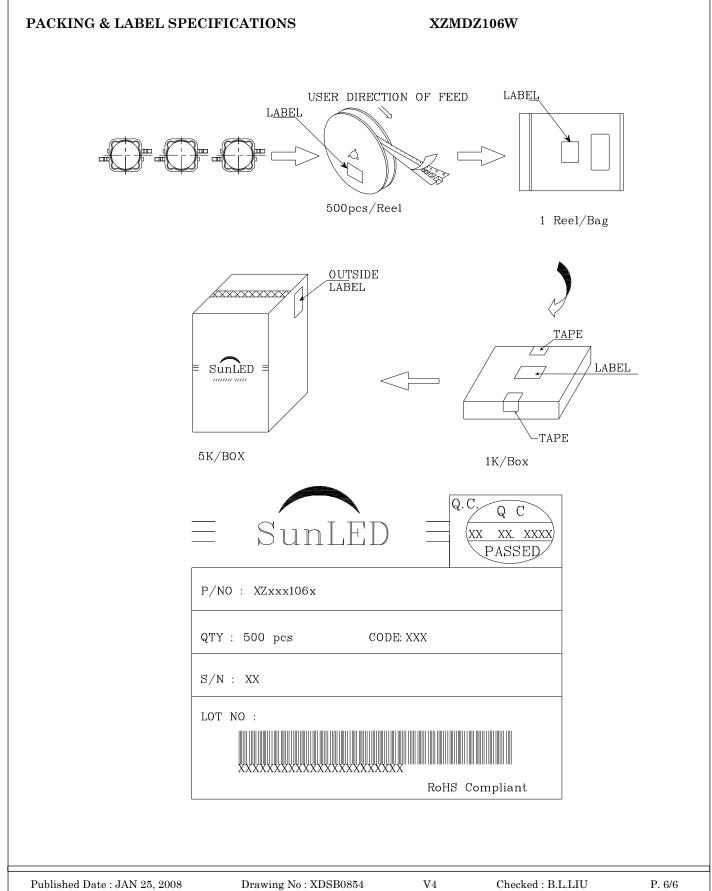
MDZ106W





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V4