

PRELIMINARY SPEC

PATENT PENDING

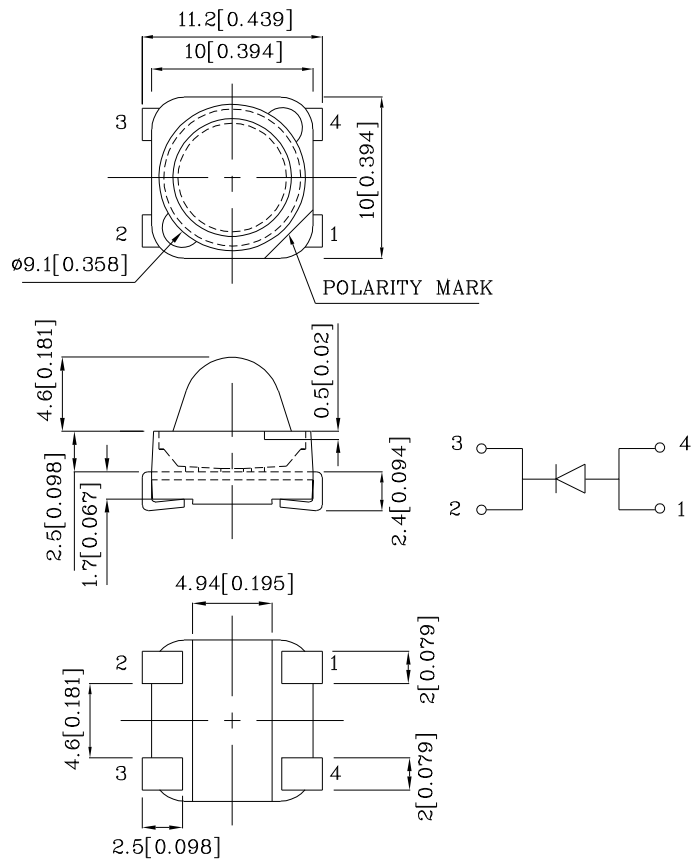
XZMDH95W-2

Features

- PLCC-4 PACKAGE.
- SINGLE COLOR.
- HIGH LUMINANCE.
- HIGH POWER, OPERATING CURRENT @ 350MA.
- SUITABLE FOR ALL SMT ASSEMBLY METHODS.
- PACKAGE : 300PCS / REEL.
- 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.

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Flux (IF=350mA) lm		Wavelength nm λ P	Viewing Angle 2θ 1/2 [2]
				min.	typ.		
XZMDH95W-2	Reddish-Orange	InGaAlP	Water Clear	13.6	21.99	640	20°

Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Value	Unit
Power Dissipation	Pt	1.2	W
Reverse Voltage	VR	5	V
Junction Temperature	TJ	110	°C
Operating Temperature	Top	-40 To +85	°C
Storage Temperature	Tstg	-40 To +85	°C
DC Forward Current[1]	IF	350	mA
Peak Forward Current [3]	IFM	500	mA
Thermal resistance [1]	Rth	60	°C/W

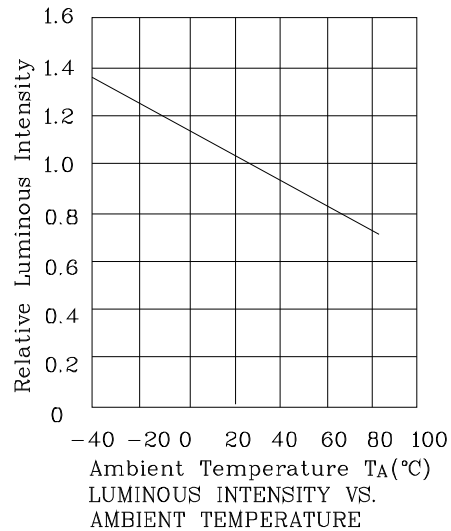
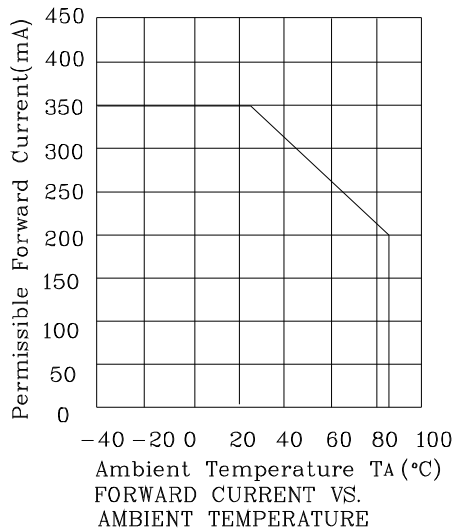
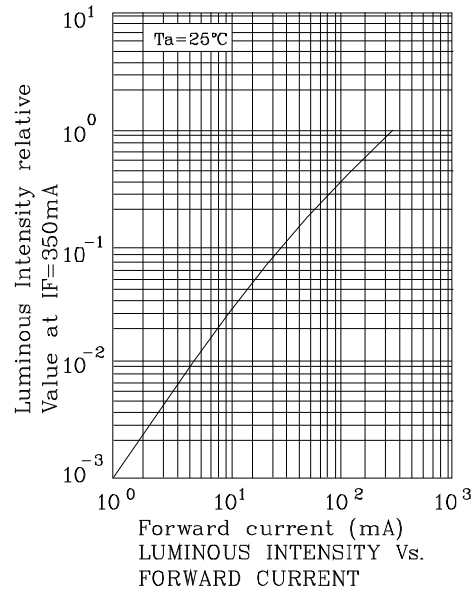
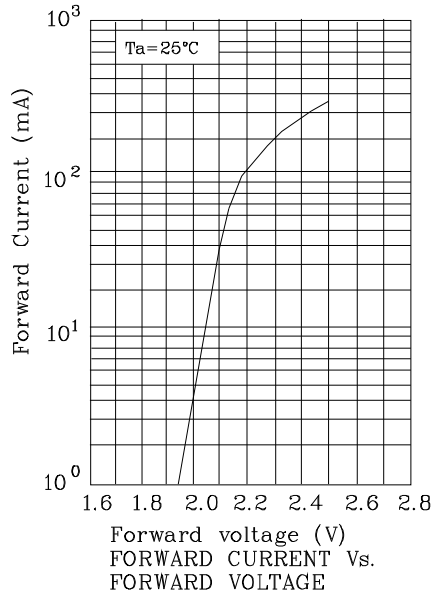
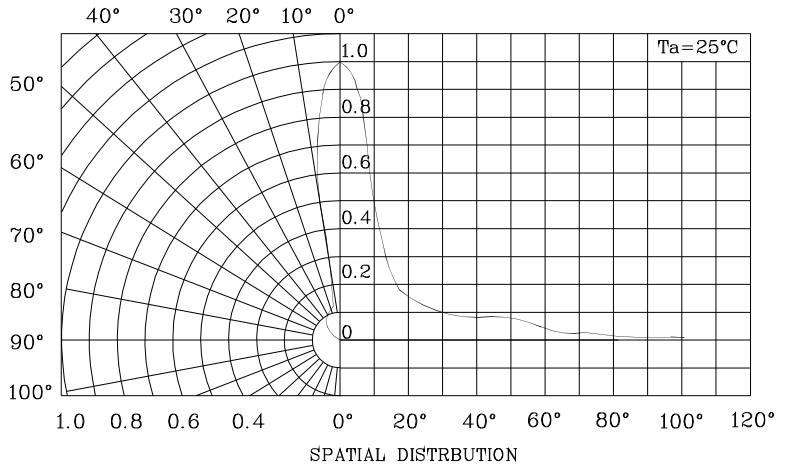
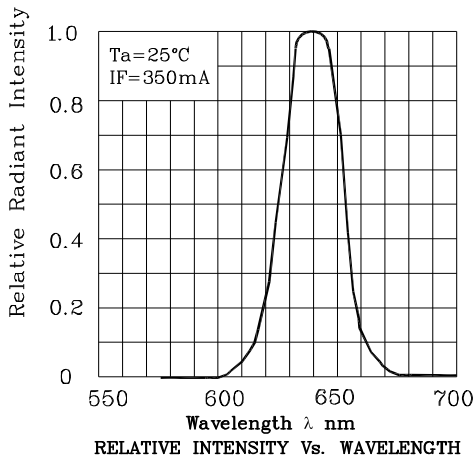
Notes:

- Results from mounting on PC board FR4(pad size ≥ 100mm² per pad), mounted on pc board-metal core PCB is recommend for lowest thermal Resistance.
- 2θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
- 1/10 Duty Cycle, 0.1ms Pulse Width.

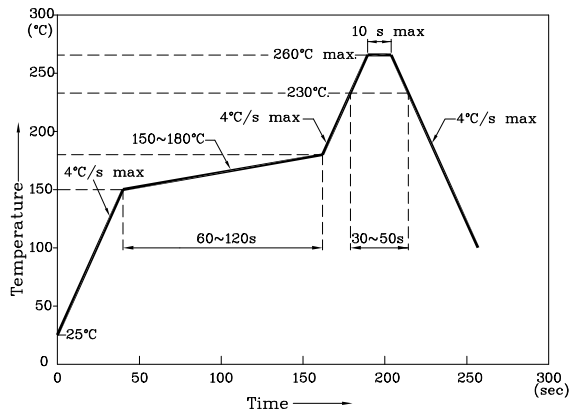
Electrical / Optical Characteristics at TA=25°C

Parameter	Symbol	Value	Unit
Wavelength of peak emission IF=350mA [Typ.]	λ peak	640	nm
Dominant Wavelength IF=350mA [Typ.]	λ dom	625	nm
Spectral bandwidth at 50%Φ REL MAX IF=350mA [Typ.]	Δλ	30	nm
Viewing angle at 50%ΦV [Typ.]	θ	20	°
Forward Voltage IF=350mA [Min.]	VF	2.0	V
Forward Voltage IF=350mA [Typ.]		2.5	
Forward Voltage IF=350mA [Max.]		3.0	
Reverse Current (VR=5V) [Typ.]	IR	10	μ A
Temperature coefficient of lpeak IF=350mA, -10°C ≤ T ≤ 100°C [Typ.]	TC λ peak	0.14	nm/°C
Temperature coefficient of ldom IF=350mA, -10°C ≤ T ≤ 100°C [Typ.]	TC λ dom	0.12	nm/°C
Temperature coefficient of VF IF=350mA, -10°C ≤ T ≤ 100°C [Typ.]	TCv	-3.0	mV/°C

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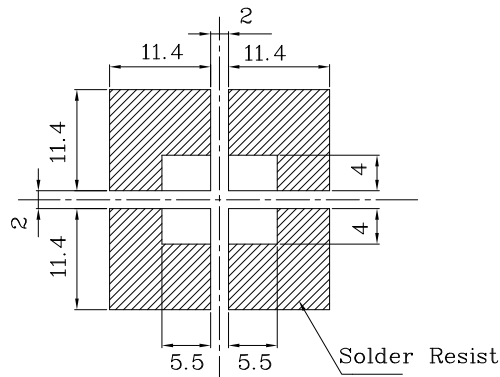
Reflow Soldering Profile For Lead-free SMT Process.



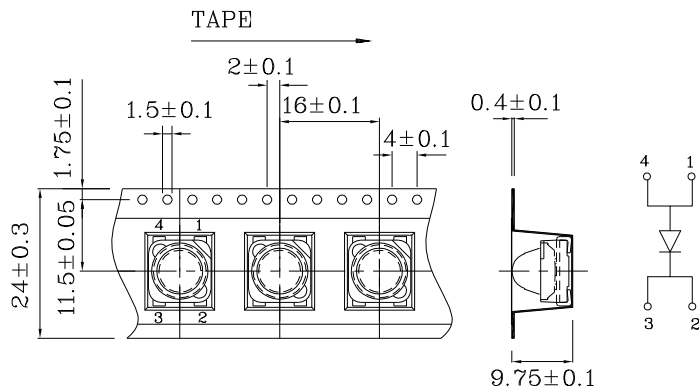
NOTES:

1. Maximum soldering temperature should not exceed 260°C.
2. Recommended reflow temperature: 145°C-260°C.
3. Do not put stress to the epoxy resin during high temperatures conditions.

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



❖ 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.