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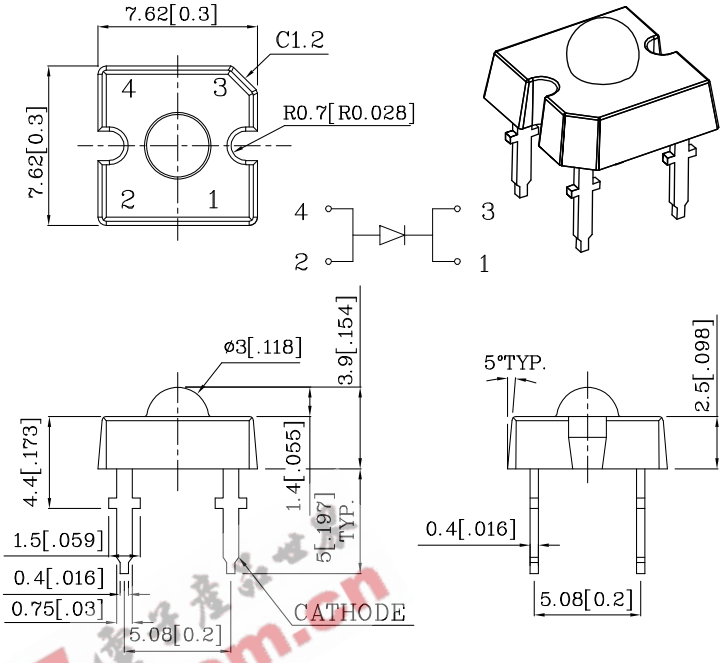
Part Number: **XSZE983W**

SUPER FLUX LED LAMP

PRELIMINARY SPEC



Features:

- HIGH LUMINANCE OUTPUT.
- DESIGN FOR HIGH CURRENT OPERATION.
- UNIFORM COLOR.
- LOW POWER CONSUMPTION.
- LOW THERMAL RESISTANCE.
- LOW PROFILE.
- PACKAGED IN TUBES FOR USE WITH AUTOMATIC INSERTION EQUIPMENT.
- RoHS COMPLIANT.

Benefits:

*Outstanding Material Efficiency.
*Electricity savings.
*Maintenance savings.
*Reliable and Rugged.

Typical Applications:

*Automotive Exterior Lighting.
*Electronic Signs and Signals.
*Specialty Lighting.

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25(0.01") unless otherwise noted.

Absolute Maximum Ratings (T_A=25°C)		**ZE (InGaAlP)**	**Unit**
Reverse Voltage	V_R	5	V
Forward Current	I_F	70	mA
Power Dissipation	P_T	217	mW
Operating Temperature	T_A	-40 ~ +85	°C
Storage Temperature	Tstg	-55 ~ +85	
Lead Solder Temperature [1.5mm(0.06inch)Below Seating Plane.]	260°C For 5 Seconds		

Operating Characteristics (T_A=25°C)		**ZE (InGaAlP)**	**Unit**
Forward Voltage (Min.) (I_F=70mA)	V_F	2.6	V
Forward Voltage (Typ.) (I_F=70mA)	V_F	2.8	V
Forward Voltage (Max.) (I_F=70mA)	V_F	3.1	V
Reverse Current (V_R=5V)	I_R	10	uA
Wavelength of Peak Emission (I_F=70mA)	λ P	640	nm
Wavelength of Dominant Emission (I_F=70mA)	λ D	630	nm
Spectral Line Full Width At Half-Maximum (I_F=70mA)	Δλ	25	nm
Capacitance (V_F=0V, f=1MHz)	C	27	pF
Thermal Resistance	Rθj-pin	125	°C/W

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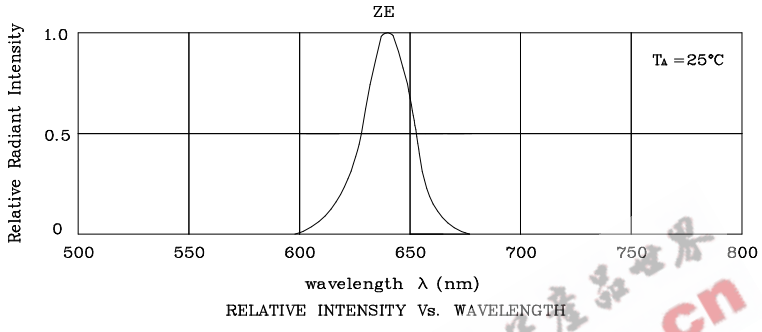
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=70mA) mcd		Wavelength nm λ P	Viewing Angle 2 θ 1/2
				min	typ.		
XSZE983W	Red	InGaAlP	Water Clear	6500	7990	640	70°

1.LUMINOUS INTENSITY IS MEASURED WITH AN INTEGRATING SPHERE AFTER THE DEVICE HAS STABILIZED.
2. θ 1/2 IS THE ANGLE FROM OPTICAL CENTERLINE WHERE THE LUMINOUS INTENSITY IS 1/2 THE OPTICAL CENTERLINE VALUE.



RELATIVE INTENSITY Vs. WAVELENGTH

❖ **ZE**

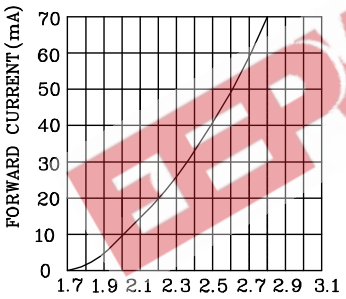


Figure1: FORWARD CURRENT Vs. FORWARD VOLTAGE

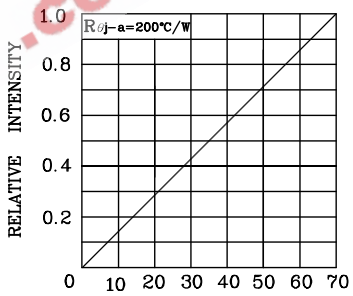


Figure2: RELATIVE INTENSITY Vs. FORWARD CURRENT

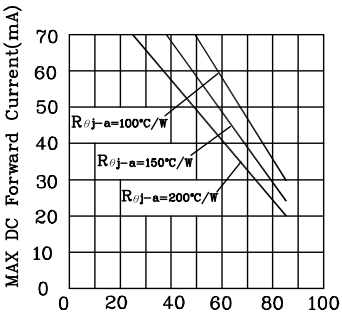


Figure3: MAX DC FORWARD CURRENT Vs AMBIENT TEMPERATURE

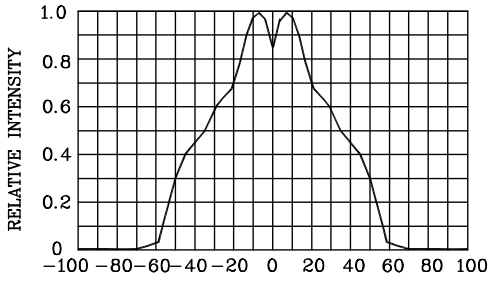
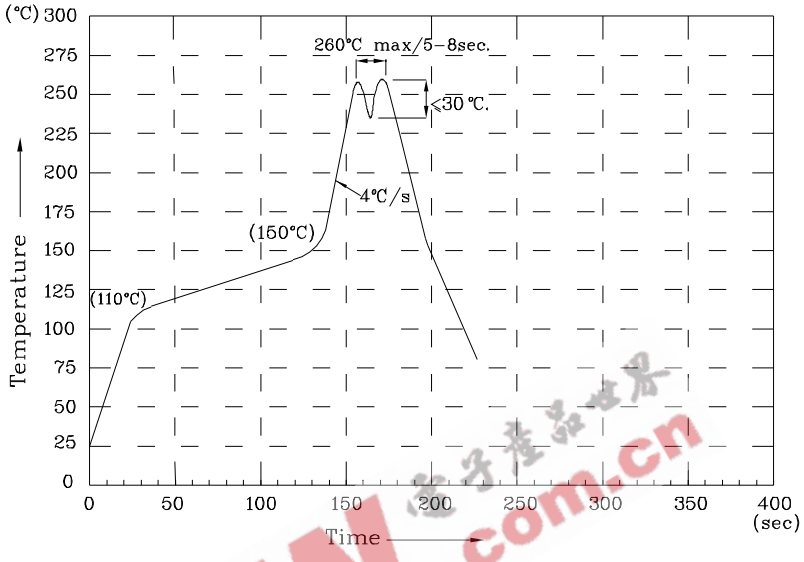


Figure4: RELATIVE INTENSITY VS OFF AXIS ANGLE

Wave Soldering Profile For Lead-free Through-hole LED.



NOTES:

1. Recommend the wave temperature 245℃~260℃. The maximum soldering temperature should be less than 260℃.
2. Do not apply stress on epoxy resins when temperature is over 85 degree℃.
3. The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
4. No more than once.

Remarks:
If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or wavelength), the typical accuracy of the sorting process is as follows:
1. Wavelength: +/-1nm
2. Luminous Intensity: +/-15%
3. Forward Voltage: +/-0.1V
Note: Accuracy may depend on the sorting parameters.