SunLED
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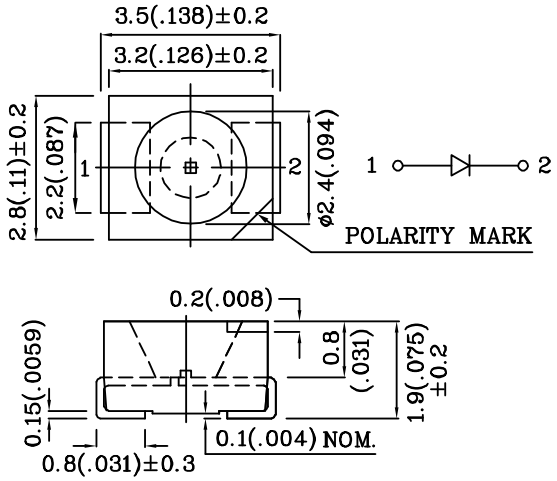
part number: **XZZE45WB**

3.5x2.8 mm SMD CHIP LED LAMP

PRELIMINARY SPEC

Features

- SINGLE COLOR.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- AVAILABLE ON TAPE AND REEL.
- IDEAL FOR BACKLIGHTING.
- PACKAGE : 1500PCS / REEL.
- BLACK CASE.
- RoHS COMPLIANT.



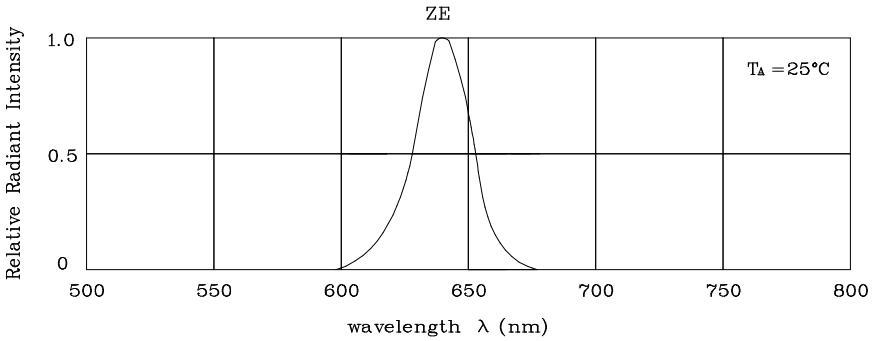
Notes:

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	50	mA
Forward current (peak) 1/10Duty cycle 0.1ms pulse width	i_{FS}	150	mA
Power dissipation	P_T	140	mW
Operating temperature	T_A	-40 ~ +85	°C
Storage temperature	Tstg	-40 ~ +85	

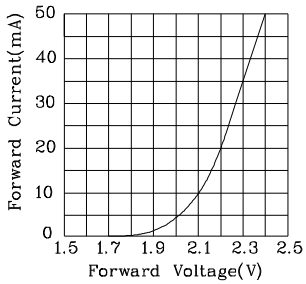
Operating Characteristics (T_A=25°C)		ZE (InGaAlP)	Unit
Forward voltage (typ.) (I_F=20mA)	V_F	2.2	V
Forward voltage (max.) (I_F=20mA)	V_F	2.8	V
Reverse current (V_R=5V)	I_R	10	uA
Wavelength at peak emission (I_F=20mA)	λ peak	640	nm
Wavelength of Dominant emission (I_F=20mA)	λ D	630	nm
Spectral Line half-width (I_F=20mA)	Δλ	25	nm
Capacitance (V_F=0V, f=1MHz)	C	27	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=20mA) mcd		Wavelength nm λ P	Viewing Angle 2 θ 1/2
				min.	typ.		
XZZE45WB	Red	InGaAlP	Water Clear	280	595	640	120°

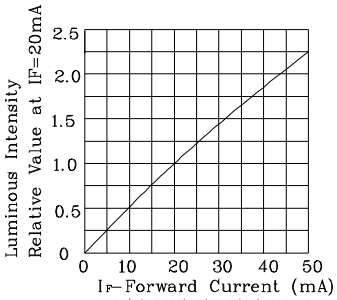


RELATIVE INTENSITY Vs. WAVELENGTH

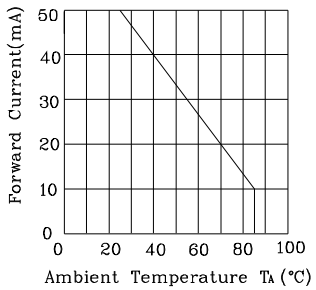
❖ **ZE**



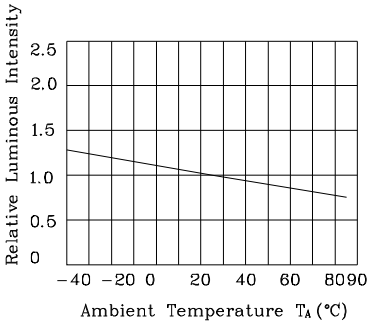
FORWARD CURRENT Vs. FORWARD VOLTAGE



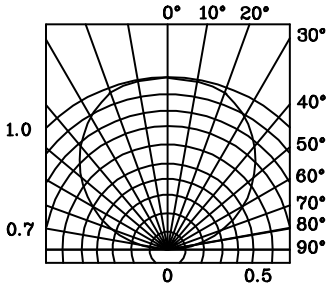
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE

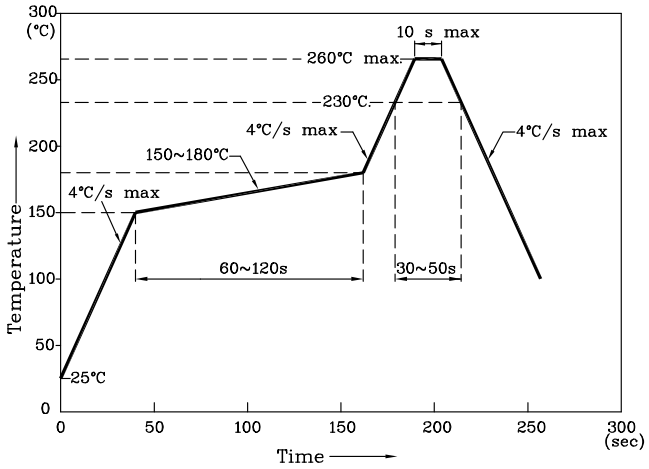


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

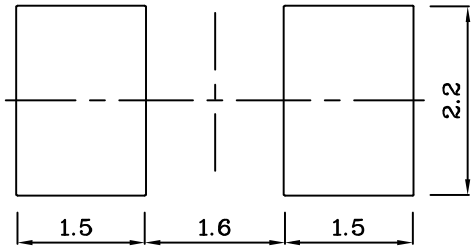
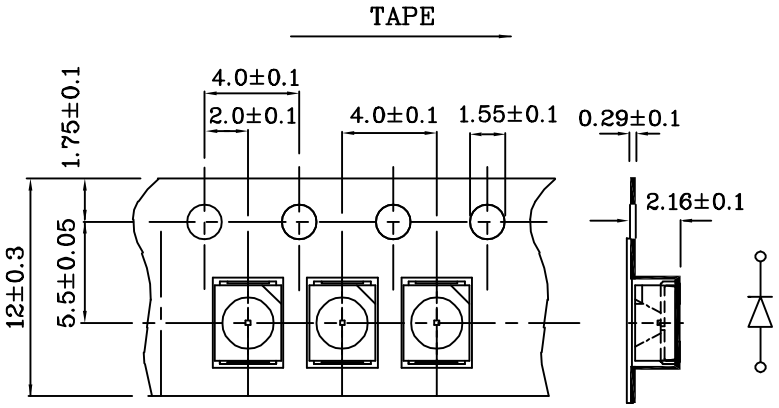
Reflow Soldering Profile For Lead-free SMT Process.



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)