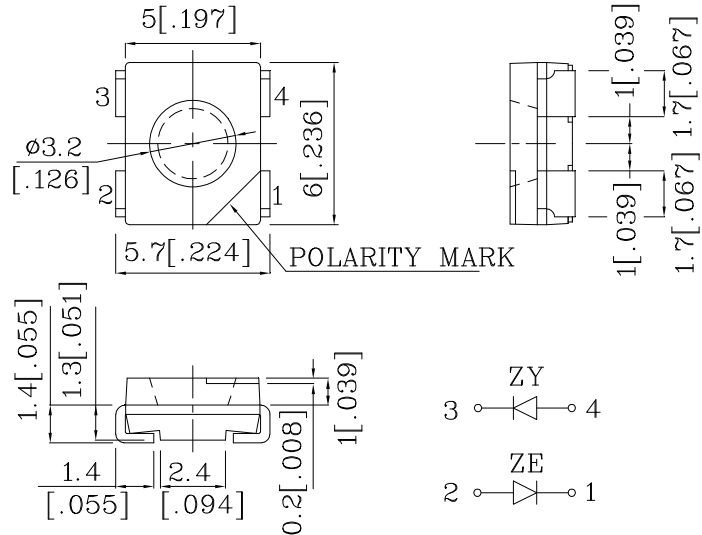


### Features

- CHIPS CAN BE CONTROLLED SEPARATELY.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- AVAILABLE ON TAPE AND REEL.
- PACKAGE: 500PCS / REEL.
- RoHS COMPLIANT.



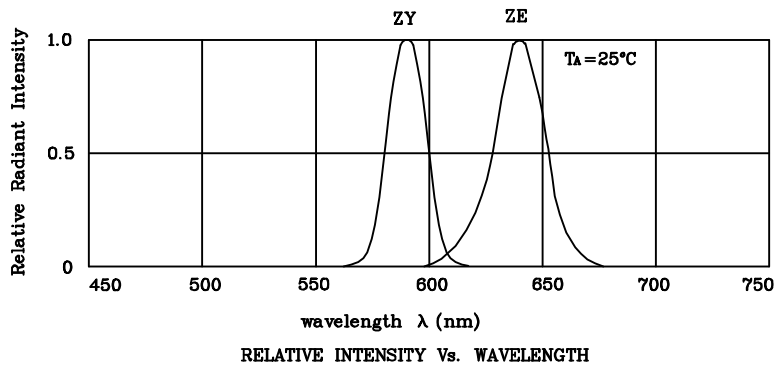
### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25(0.01)$  unless otherwise noted.

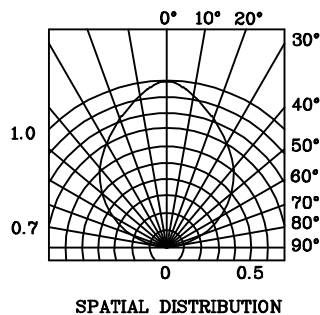
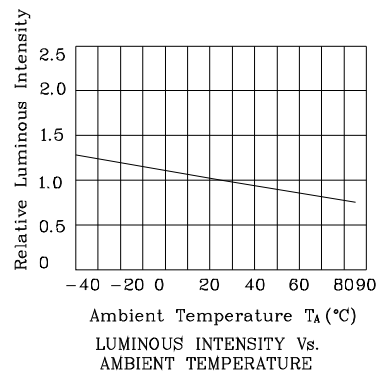
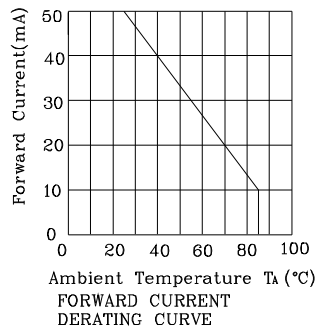
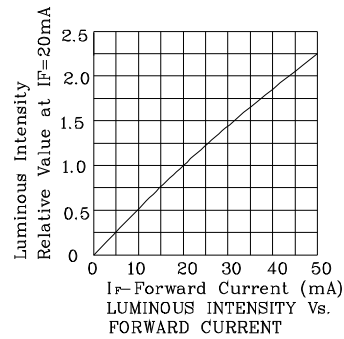
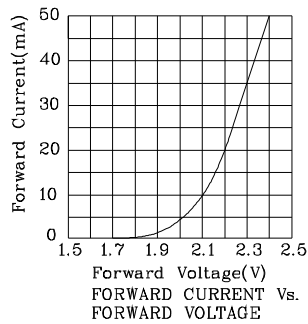
Absolute maximum ratings ( $T_A=25^\circ\text{C}$ )		ZE (InGaAlP)	ZY (InGaAlP)	Unit
Reverse Voltage	$V_R$	5	5	V
Forward Current	$I_F$	50	50	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	$i_{FS}$	150	140	mA
Power Dissipation	$P_T$	140	140	mW
Operating Temperature	$T_A$	-40 ~ +85		°C
Storage Temperature	$T_{stg}$	-40 ~ +85		

Operating Characteristics ( $T_A=25^\circ\text{C}$ )		ZE (InGaAlP)	ZY (InGaAlP)	Unit
Forward Voltage (Typ.) ( $I_F=20\text{mA}$ )	$V_F$	2.2	2.3	V
Forward Voltage (Max.) ( $I_F=20\text{mA}$ )	$V_F$	2.8	2.8	V
Reverse Current ( $V_R=5\text{V}$ )	$I_R$	10	10	$\mu\text{A}$
Wavelength of Peak Emission ( $I_F=20\text{mA}$ )	$\lambda_P$	640	590	nm
Wavelength of Dominant Emission ( $I_F=20\text{mA}$ )	$\lambda_D$	630	589	nm
Spectral Line Full Width At Half-Maximum ( $I_F=20\text{mA}$ )	$\Delta\lambda$	25	20	nm
Capacitance ( $V_F=0\text{V}$ , $f=1\text{MHz}$ )	$C$	27	45	pF

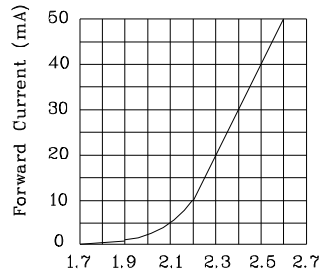
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity ( $I_F=50\text{mA}$ ) mcd		Wavelength nm $\lambda_P$	Viewing Angle $2\theta$ 1/2
				min.	typ.		
XZZEZY82W	Red	InGaAlP	Water Clear	1500	2290	640	100°
	Yellow	InGaAlP		380	695	590	
Published Date : MAY 20,2005		Drawing No : XDSA7991		V1	Checked : B.L.LIU		P.1/4



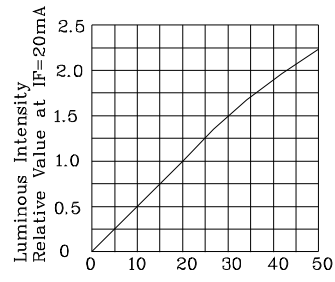
◆ ZE



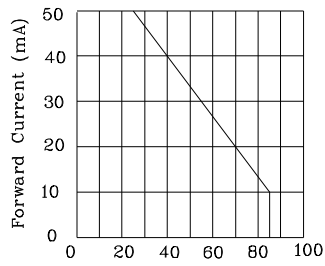
❖ ZY



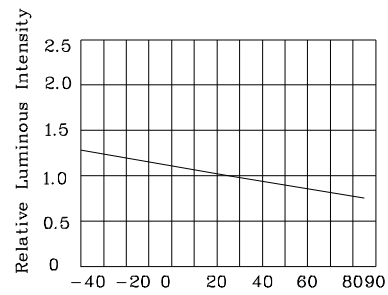
Forward Voltage(V)  
 FORWARD CURRENT Vs.  
 FORWARD VOLTAGE



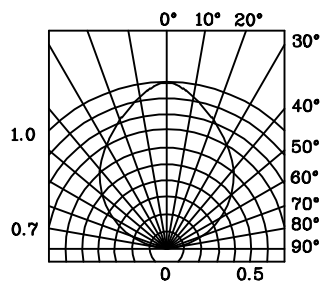
IF-Forward Current (mA)  
 LUMINOUS INTENSITY Vs.  
 FORWARD CURRENT



Ambient Temperature Ta (°C)  
 FORWARD CURRENT  
 DERATING CURVE

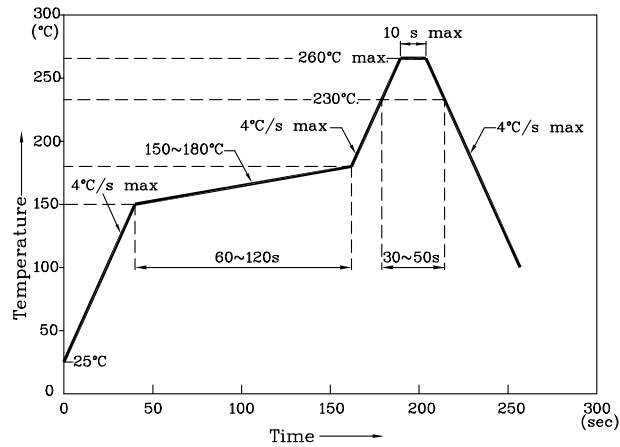


Ambient Temperature Ta (°C)  
 LUMINOUS INTENSITY Vs.  
 AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

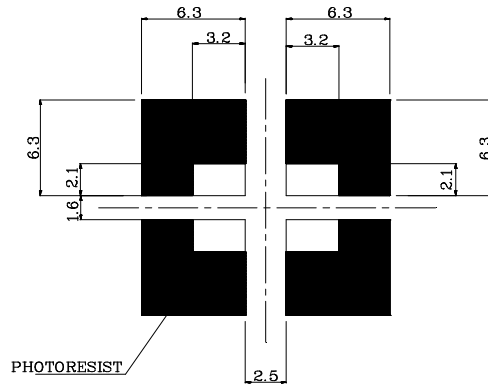
Reflow Soldering Profile For Lead-free SMT Process.



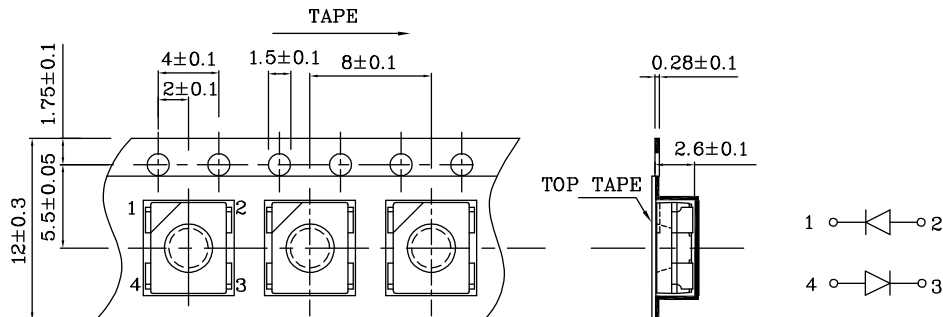
NOTES:

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)



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.