SunLED
www.SunLED.com

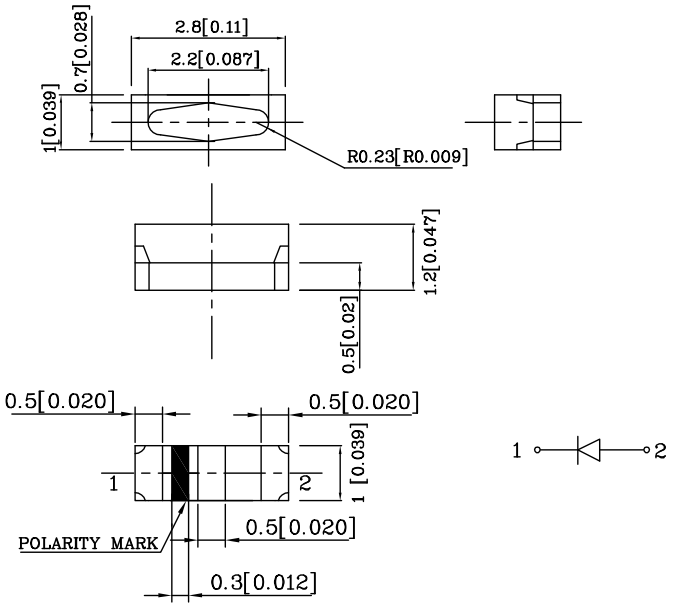
Part Number: XZMD81W-1

2. 8X1. 0mm RIGHT ANGLE SMD CHIP LED LAMP

PRELIMINARY SPEC

Features

- 2.8mmX1.0mm RIGHT ANGLE SMT LED, 1.2mm THICKNESS.
- LOW POWER CONSUMPTION.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 2000PCS / REEL.



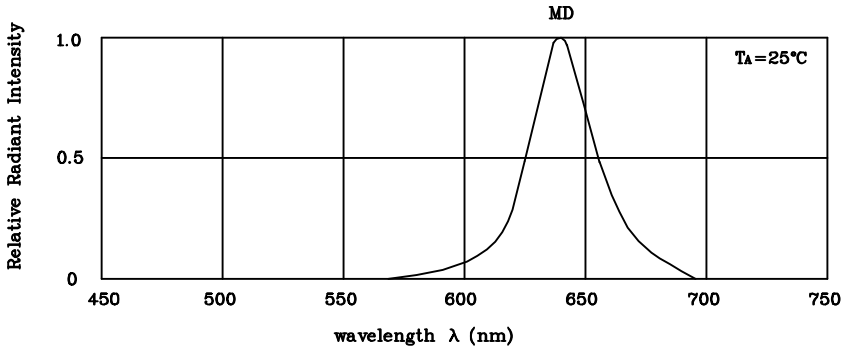
Notes:

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

Absolute maximum ratings (TA=25°C)		**MD (InGaAlP)**	**Unit**
Reverse voltage	VR	5	V
Forward current	IF	30	mA
Forward current (peak) 1/10Duty cycle 0.1ms pulse width	iFS	185	mA
Power dissipation	PT	170	mW
Operating temperature	TA	-40 ~ +85	°C
Storage temperature	Tstg	-40 ~ +85	

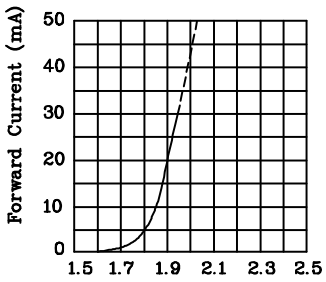
Operating Characteristics (TA=25°C)		**MD (InGaAlP)**	**Unit**
Forward voltage (typ.) (IF=20mA)	VF	1.9	V
Forward voltage (max.) (IF=20mA)	VF	2.5	V
Reverse current (VR=5V)	IR	10	uA
Wavelength at peak emission (IF=20mA)	λ peak	640	nm
Wavelength at Dominate emission (IF=20mA)	λ D	628	nm
Spectral Line half-width (IF=20mA)	Δλ	27	nm
Capacitance (VF=0V, f=1MHz)	C	45	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.		
XZMD81W-1	Red	InGaAlP	Water Clear	70	219	640	90°

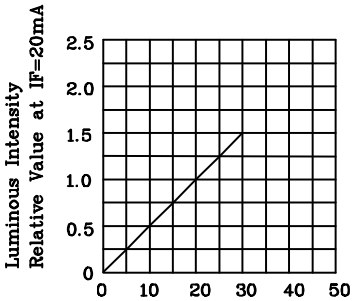


RELATIVE INTENSITY Vs. WAVELENGTH

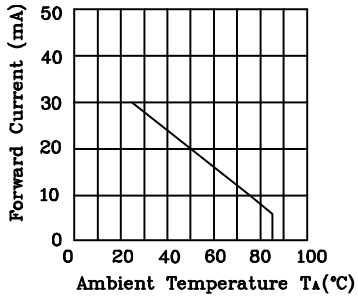
❖ **MD**



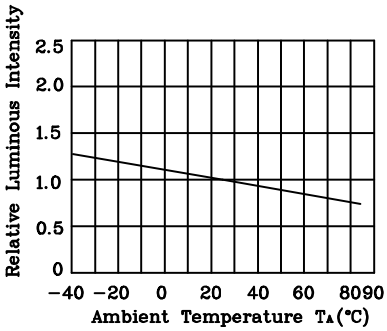
FORWARD CURRENT Vs.
FORWARD VOLTAGE



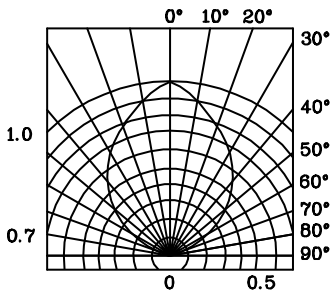
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE

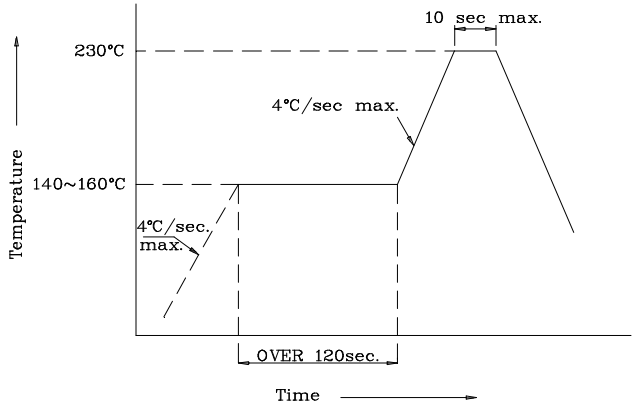


LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

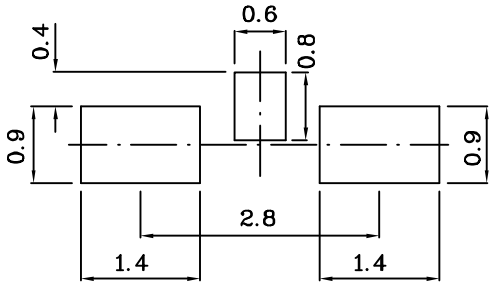


SPATIAL DISTRIBUTION

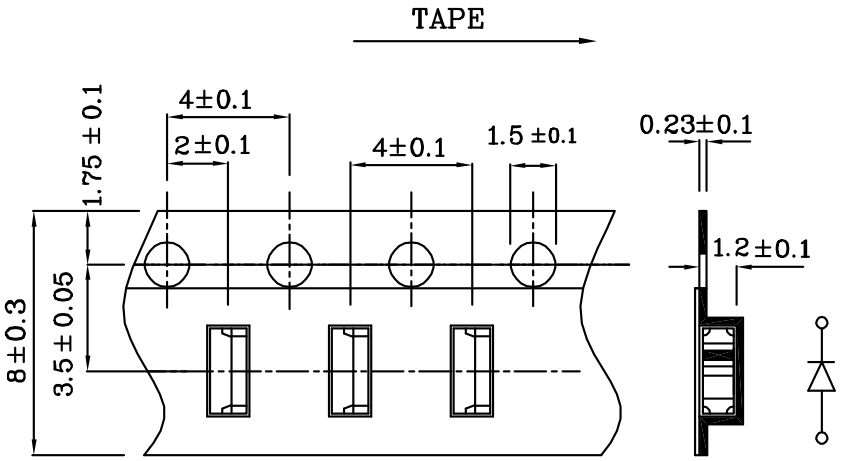
❖ SMT Reflow Soldering Instructions



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



❖ Tape Specification (Units : mm)



SunLED
www.SunLED.com

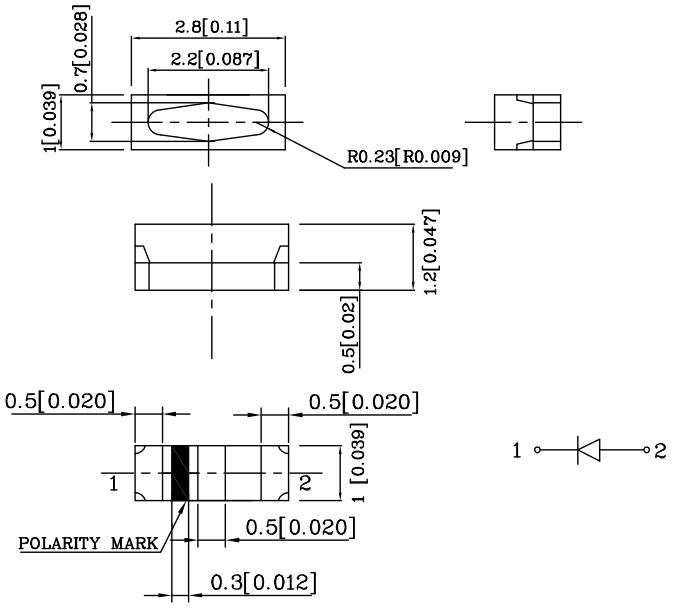
Part Number: XZMO81W-1

2. 8X1. 0mm RIGHT ANGLE SMD CHIP LED LAMP

PRELIMINARY SPEC

Features

- 2.8mmX1.0mm RIGHT ANGLE SMT LED, 1.2mm THICKNESS.
- LOW POWER CONSUMPTION.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 2000PCS / REEL.



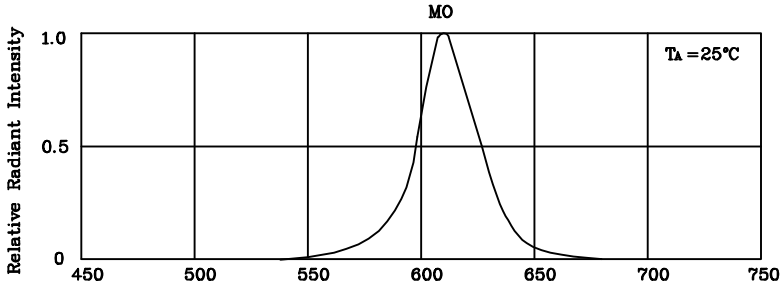
Notes:

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

Absolute maximum ratings (T_A=25°C)		MO (InGaAlP)	Unit
Reverse voltage	V_R	5	V
Forward current	I_F	30	mA
Forward current (peak) 1/10Duty cycle 0.1ms pulse width	i_{FS}	195	mA
Power dissipation	P_T	75	mW
Operating temperature	T_A	-40 ~ +85	°C
Storage temperature	Tstg	-40 ~ +85	

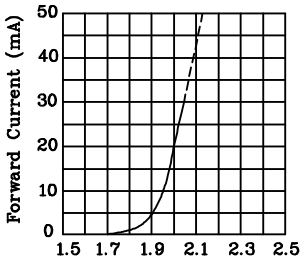
Operating Characteristics (T_A=25°C)		MO (InGaAlP)	Unit
Forward voltage (typ.) (I_F=20mA)	V_F	2.0	V
Forward voltage (max.) (I_F=20mA)	V_F	2.5	V
Reverse current (V_R=5V)	I_R	10	uA
Wavelength at peak emission (I_F=20mA)	λ peak	610	nm
Wavelength at Dominate emission (I_F=20mA)	λ D	601	nm
Spectral Line half-width (I_F=20mA)	Δλ	29	nm
Capacitance (V_F=0V, f=1MHz)	C	30	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=20mA) mcd		Wavelength nm λ P	Viewing Angle 2θ 1/2
				min.	typ.		
XZMO81W-1	Orange	InGaAlP	Water Clear	110	299	610	90°

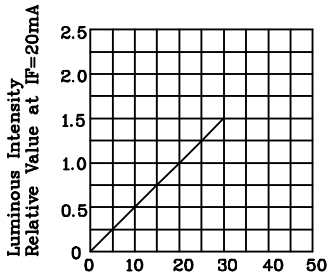


RELATIVE INTENSITY Vs. WAVELENGTH

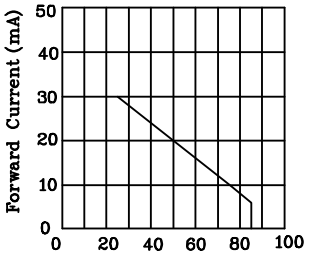
❖ **MO**



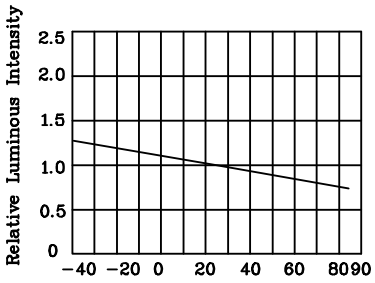
FORWARD CURRENT Vs
FORWARD VOLTAGE



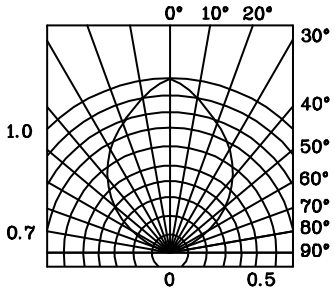
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE

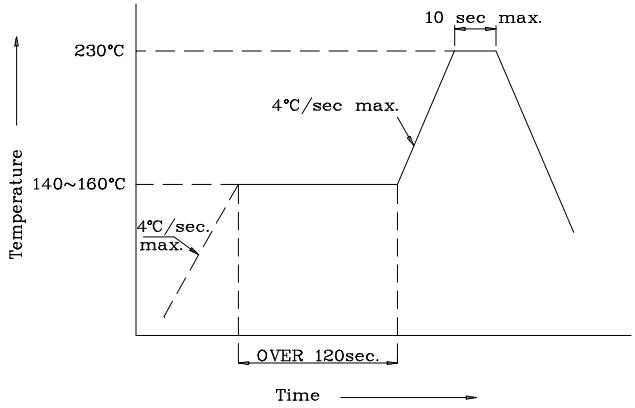


LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

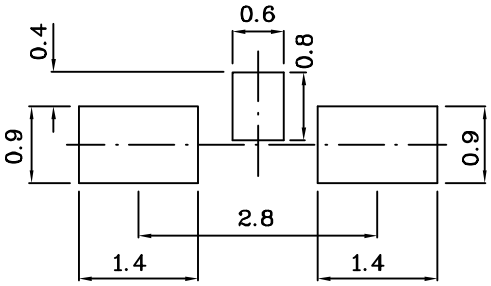


SPATIAL DISTRIBUTION

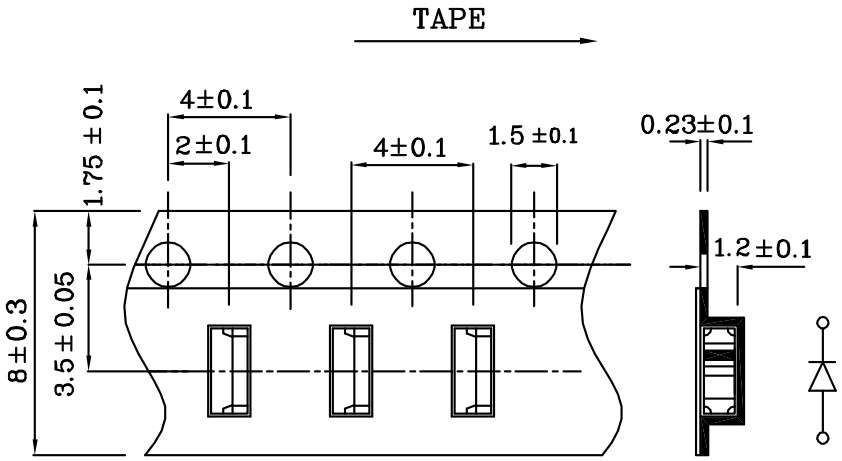
❖ SMT Reflow Soldering Instructions



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



❖ Tape Specification (Units : mm)



SunLED
www.SunLED.com

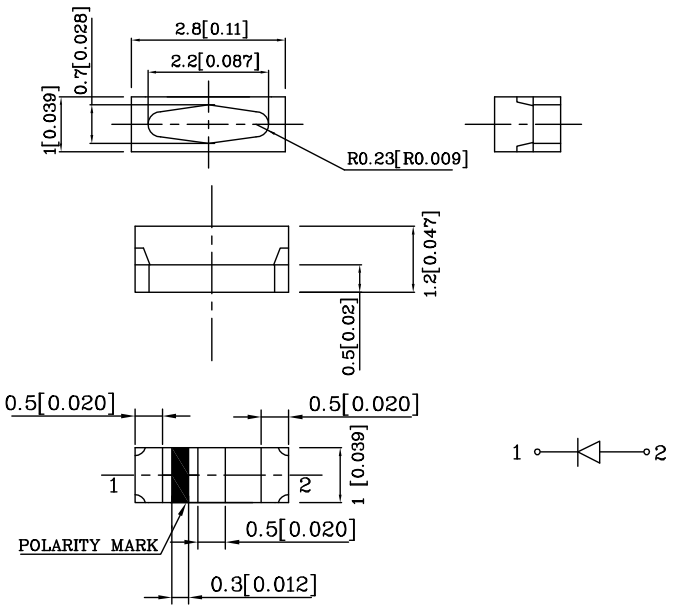
Part Number: XZMY81W-1

2. 8X1. 0mm RIGHT ANGLE SMD CHIP LED LAMP

PRELIMINARY SPEC

Features

- 2.8mmX1.0mm RIGHT ANGLE SMT LED, 1.2mm THICKNESS.
- LOW POWER CONSUMPTION.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 2000PCS / REEL.



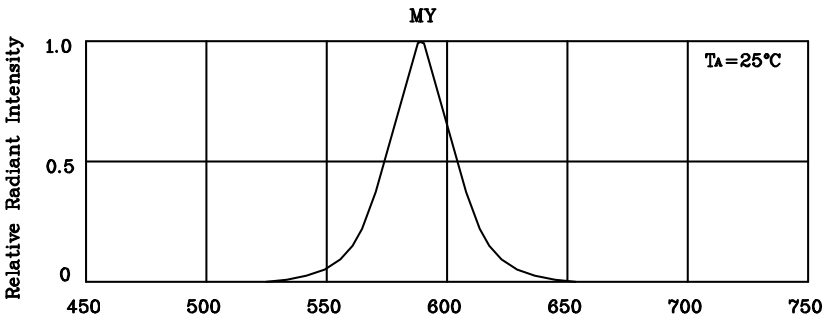
Notes:

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

Absolute maximum ratings (T_A=25°C)		**MY (InGaAlP)**	**Unit**
Reverse voltage	V_R	5	V
Forward current	I_F	30	mA
Forward current (peak) 1/10Duty cycle 0.1ms pulse width	i_{FS}	150	mA
Power dissipation	P_T	125	mW
Operating temperature	T_A	-40 ~ +85	°C
Storage temperature	Tstg	-40 ~ +85	

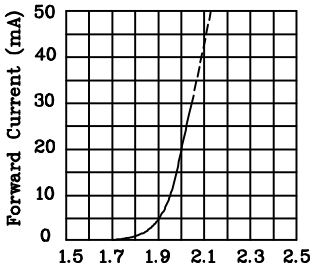
Operating Characteristics (T_A=25°C)		**MY (InGaAlP)**	**Unit**
Forward voltage (typ.) (I_F=20mA)	V_F	2.0	V
Forward voltage (max.) (I_F=20mA)	V_F	2.5	V
Reverse current (V_R=5V)	I_R	10	uA
Wavelength at peak emission (I_F=20mA)	λ peak	590	nm
Wavelength at Dominate emission (I_F=20mA)	λ D	588	nm
Spectral Line half-width (I_F=20mA)	Δλ	28	nm
Capacitance (V_F=0V, f=1MHz)	C	25	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.		
XZMY81W-1	Yellow	InGaAlP	Water Clear	50	99	590	90°

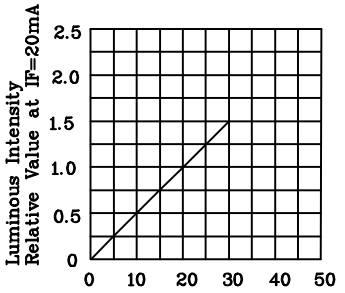


RELATIVE INTENSITY Vs. WAVELENGTH

❖ MY

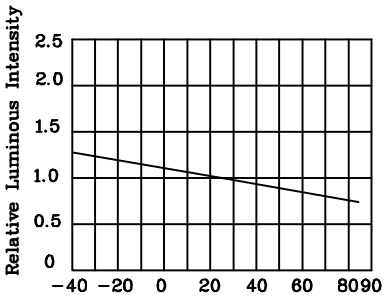


FORWARD CURRENT Vs.
FORWARD VOLTAGE

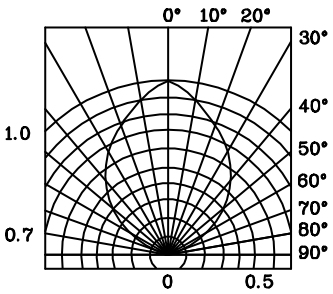


LUMINOUS INTENSITY Vs.
FORWARD CURRENT

FORWARD CURRENT
DERATING CURVE

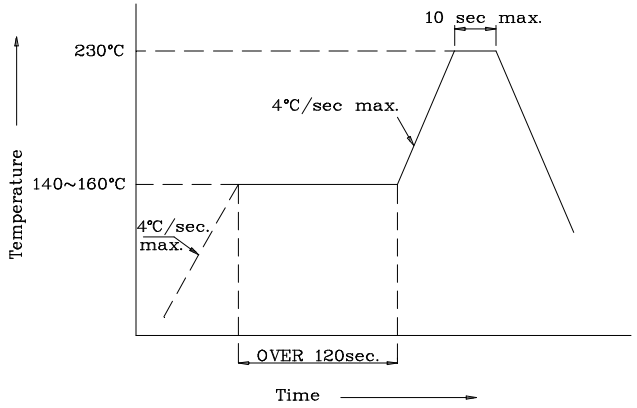


LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

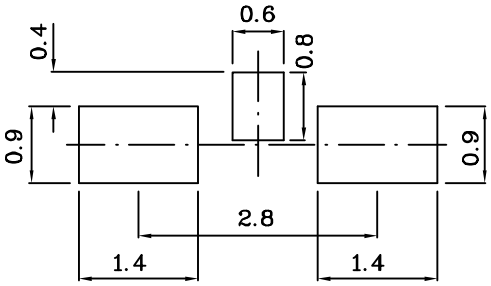


SPATIAL DISTRIBUTION

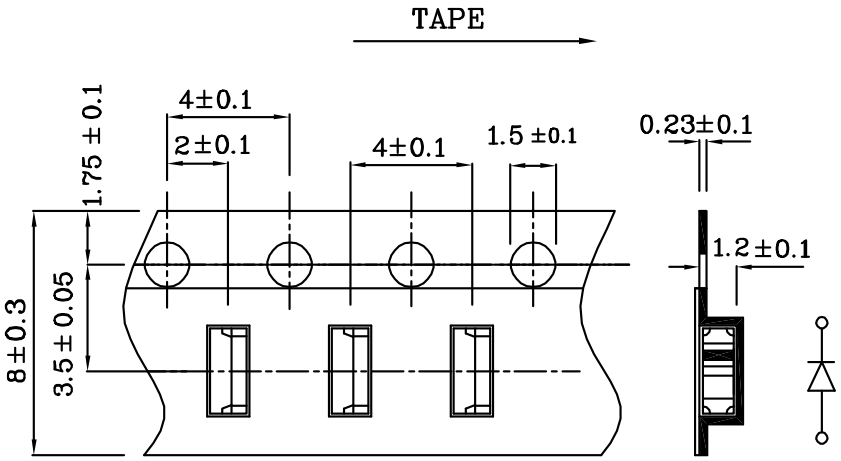
❖ SMT Reflow Soldering Instructions



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



❖ Tape Specification (Units : mm)



SunLED
www.SunLED.com

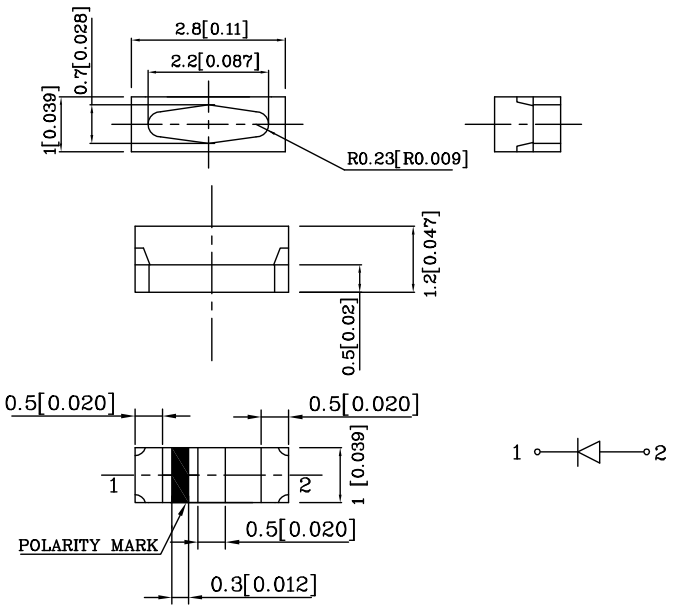
Part Number: XZVG81W-1

2. 8X1. 0mm RIGHT ANGLE SMD CHIP LED LAMP

PRELIMINARY SPEC

Features

- 2.8mmX1.0mm RIGHT ANGLE SMT LED, 1.2mm THICKNESS.
- LOW POWER CONSUMPTION.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 2000PCS / REEL.



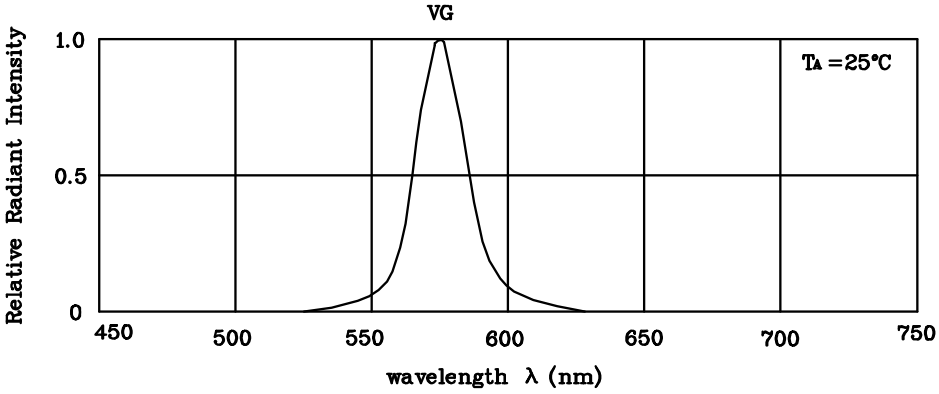
Notes:

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

Absolute maximum ratings (TA=25°C)		**VG (InGaAlP)**	**Unit**
Reverse voltage	VR	5	V
Forward current	IF	30	mA
Forward current (peak) 1/10Duty cycle 0.1ms pulse width	iFS	150	mA
Power dissipation	PT	105	mW
Operating temperature	TA	-40 ~ +85	°C
Storage temperature	Tstg	-40 ~ +85	

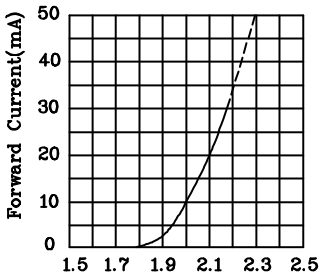
Operating Characteristics (TA=25°C)		**VG (InGaAlP)**	**Unit**
Forward voltage (typ.) (IF=20mA)	VF	2.1	V
Forward voltage (max.) (IF=20mA)	VF	2.5	V
Reverse current (VR=5V)	IR	10	uA
Wavelength at peak emission (IF=20mA)	λ peak	574	nm
Wavelength at Dominate emission (IF=20mA)	λ D	570	nm
Spectral Line half-width (IF=20mA)	Δλ	20	nm
Capacitance (VF=0V, f=1MHz)	C	15	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.		
XZVG81W-1	Green	InGaAlP	Water Clear	36	59	574	90°

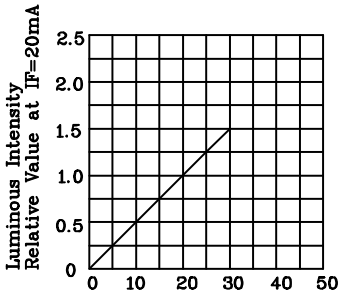


RELATIVE INTENSITY Vs. WAVELENGTH

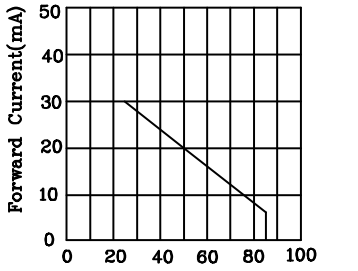
❖ VG



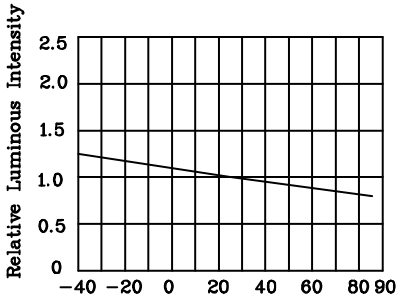
FORWARD CURRENT Vs.
FORWARD VOLTAGE



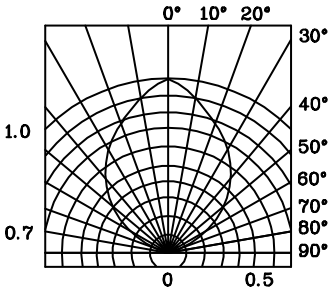
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE

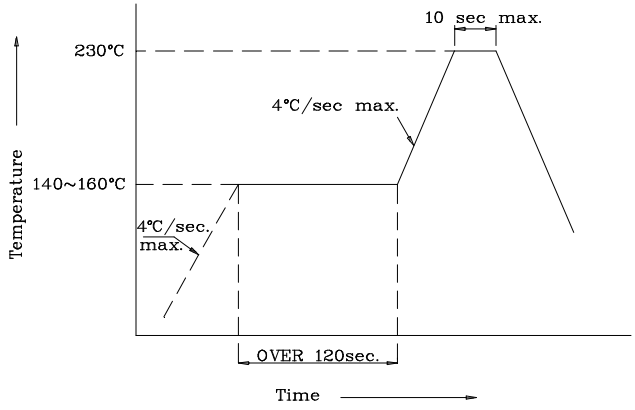


LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

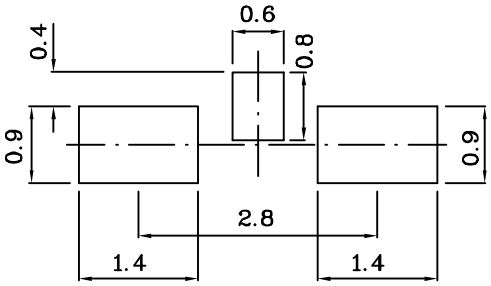


SPATIAL DISTRIBUTION

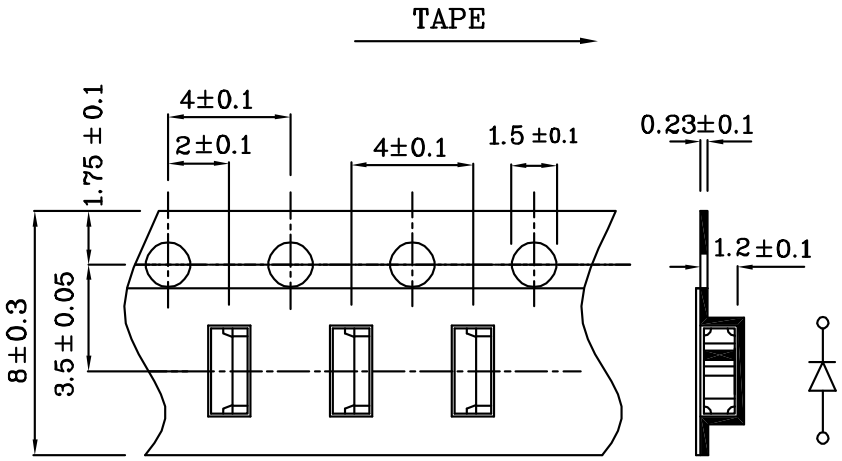
❖ SMT Reflow Soldering Instructions



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



❖ Tape Specification (Units : mm)



SunLED
www.SunLED.com

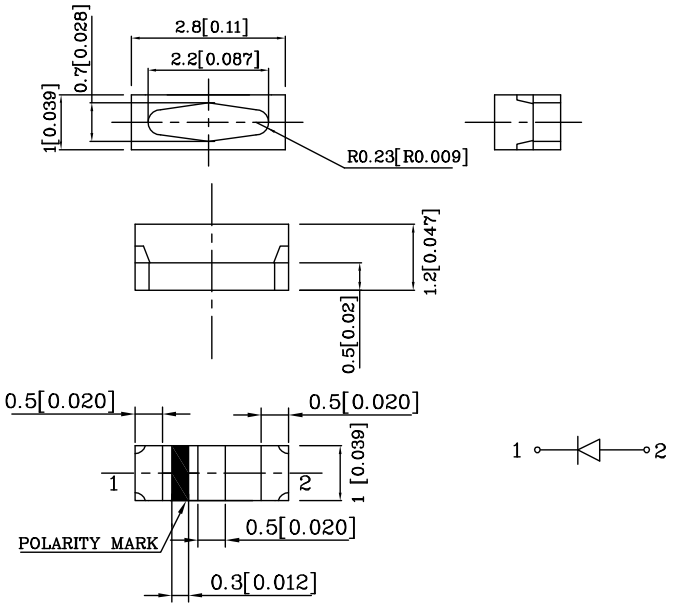
Part Number: XZZE81W-1

2. 8X1. 0mm RIGHT ANGLE SMD CHIP LED LAMP

PRELIMINARY SPEC

Features

- 2.8mmX1.0mm RIGHT ANGLE SMT LED, 1.2mm THICKNESS.
- LOW POWER CONSUMPTION.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 2000PCS / REEL.



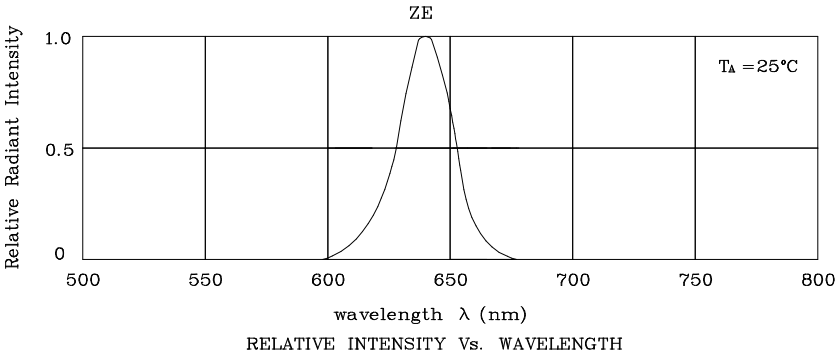
Notes:

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	30	mA
Forward current (peak) 1/10Duty cycle 0.1ms pulse width	iFS	150	mA
Power dissipation	P_T	120	mW
Operating temperature	T_A	-40 ~ +85	°C
Storage temperature	Tstg	-40 ~ +85	

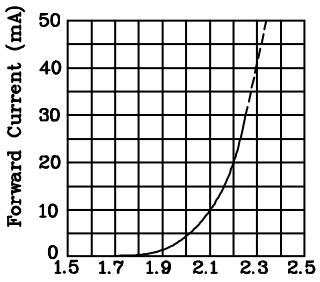
Operating Characteristics (T_A=25°C)		ZE (InGaAlP)	Unit
Forward voltage (typ.) (I_F=20mA)	V_F	2.2	V
Forward voltage (max.) (I_F=20mA)	V_F	2.8	V
Reverse current (V_R=5V)	I_R	10	uA
Wavelength at peak emission (I_F=20mA)	λ peak	640	nm
Wavelength at Dominate emission (I_F=20mA)	λ D	630	nm
Spectral Line half-width (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.		
XZZE81W-1	Red	InGaAlP	Water Clear	380	639	640	90°

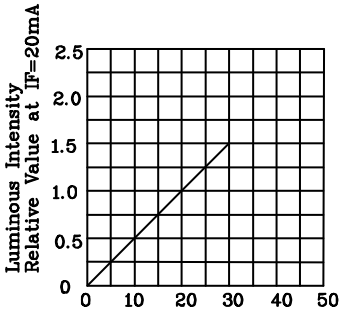


RELATIVE INTENSITY Vs. WAVELENGTH

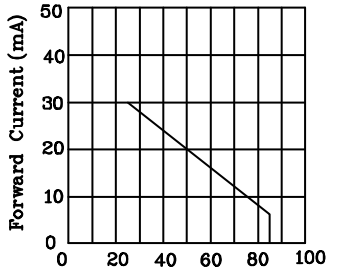
❖ **ZE**



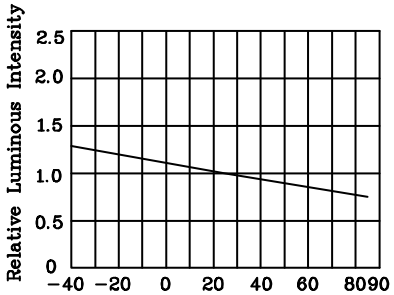
FORWARD CURRENT Vs
FORWARD VOLTAGE



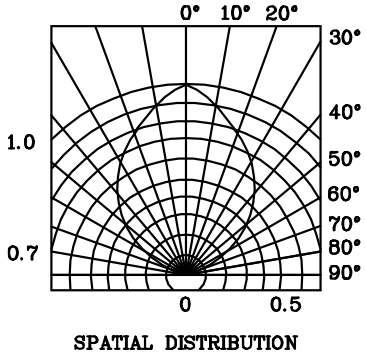
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE

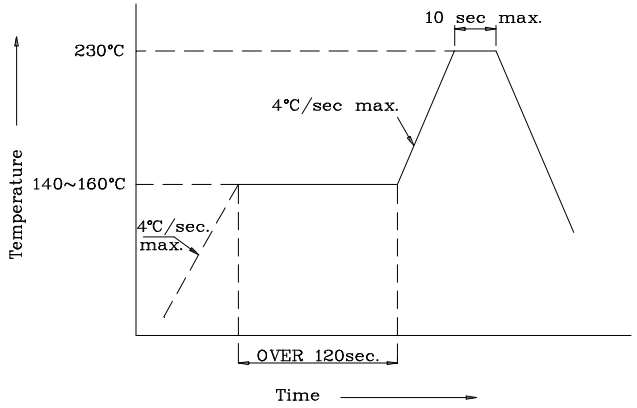


LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

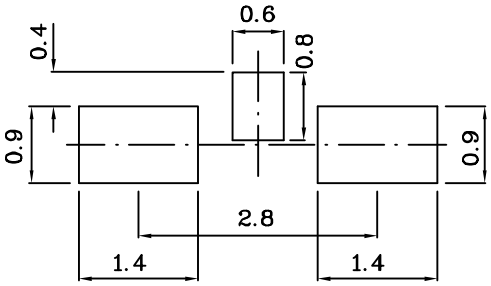


SPATIAL DISTRIBUTION

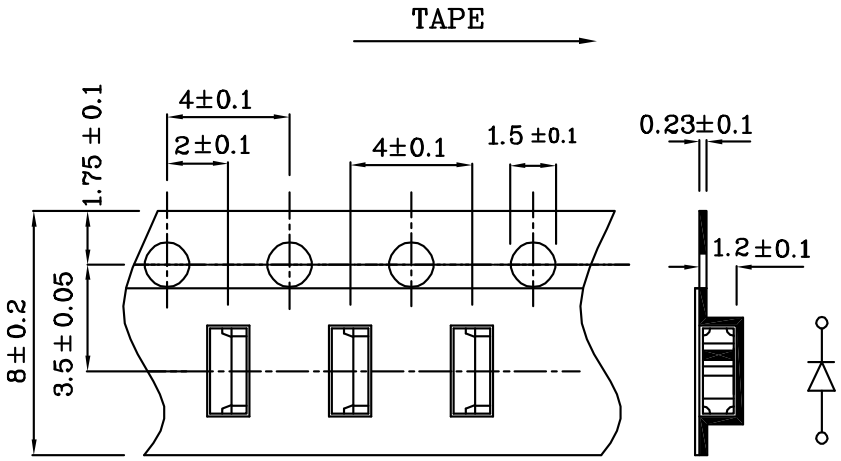
❖ SMT Reflow Soldering Instructions



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



❖ Tape Specification (Units : mm)



SunLED
www.SunLED.com

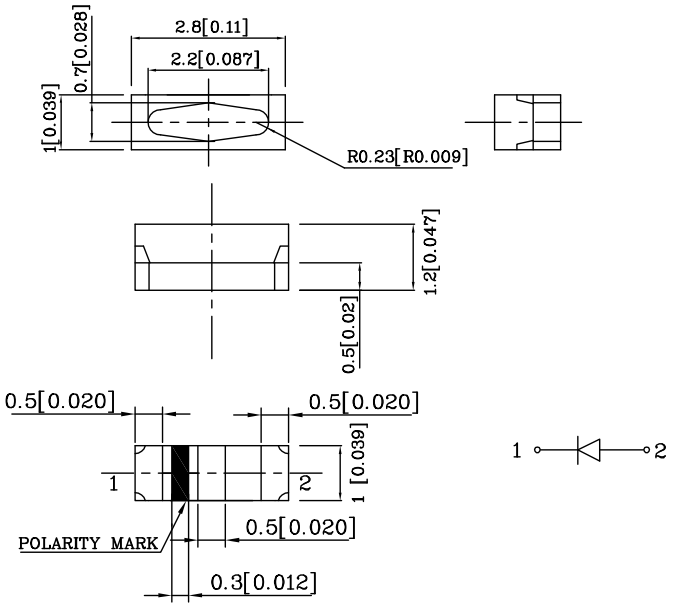
Part Number: XZZY81W-1

2. 8X1. 0mm RIGHT ANGLE SMD CHIP LED LAMP

PRELIMINARY SPEC

Features

- 2.8mmX1.0mm RIGHT ANGLE SMT LED, 1.2mm THICKNESS.
- LOW POWER CONSUMPTION.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 2000PCS / REEL.



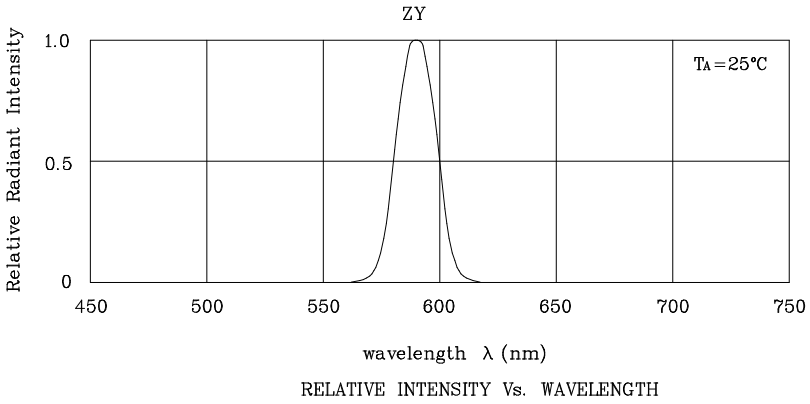
Notes:

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

Absolute maximum ratings (TA=25°C)		**ZY (InGaAlP)**	**Unit**
Reverse voltage	VR	5	V
Forward current	IF	30	mA
Forward current (peak) 1/10Duty cycle 0.1ms pulse width	iFS	140	mA
Power dissipation	PT	120	mW
Operating temperature	TA	-40 ~ +85	°C
Storage temperature	Tstg	-40 ~ +85	

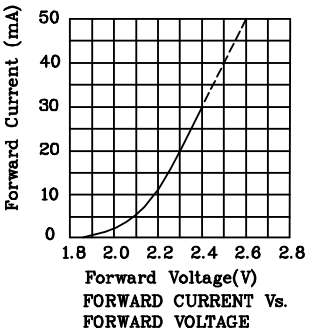
Operating Characteristics (TA=25°C)		**ZY (InGaAlP)**	**Unit**
Forward voltage (typ.) (IF=20mA)	VF	2.3	V
Forward voltage (max.) (IF=20mA)	VF	2.8	V
Reverse current (VR=5V)	IR	10	uA
Wavelength at peak emission (IF=20mA)	λ peak	590	nm
Wavelength at Dominate emission (IF=20mA)	λ D	589	nm
Spectral Line half-width (IF=20mA)	Δλ	20	nm
Capacitance (VF=0V, f=1MHz)	C	45	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.		
XZZY81W-1	Yellow	InGaAlP	Water Clear	70	159	590	90°

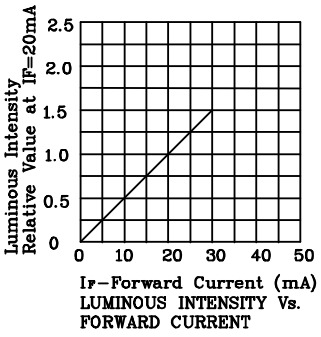


RELATIVE INTENSITY Vs. WAVELENGTH

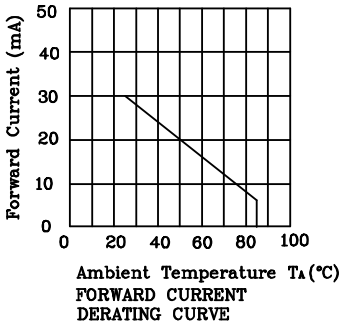
❖ **ZY**



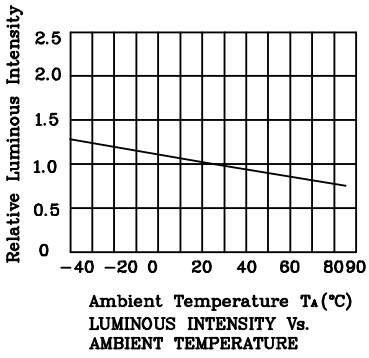
FORWARD CURRENT Vs.
FORWARD VOLTAGE



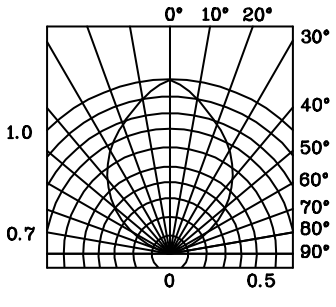
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE

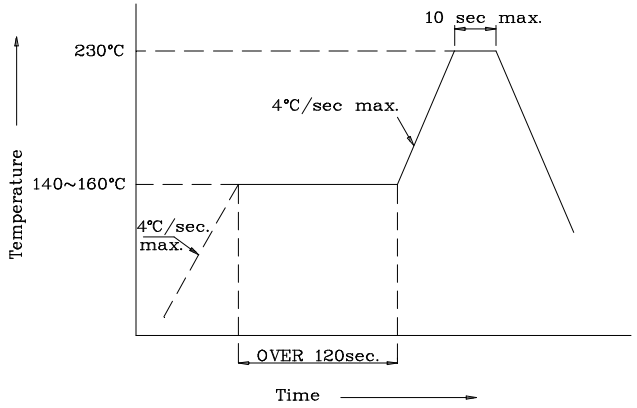


LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

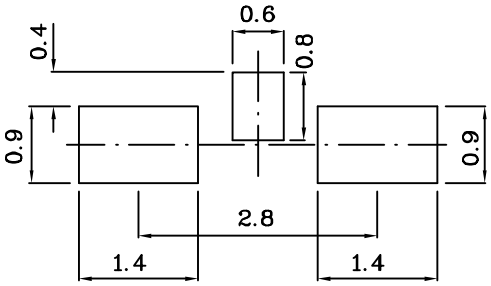


SPATIAL DISTRIBUTION

❖ SMT Reflow Soldering Instructions



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



❖ Tape Specification (Units : mm)