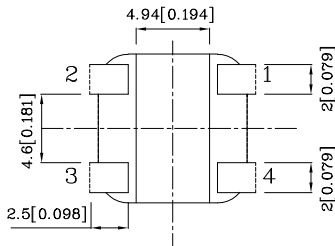
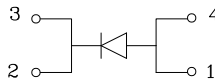
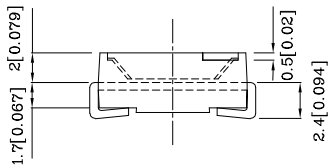
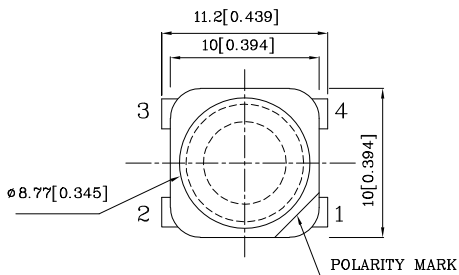


PRELIMINARY SPEC

XZMDH102W

Features

- *P-LCC-4 PACKAGE.
- *SINGLE COLOR.
- *HIGH LUMINANCE.
- *SUITABLE FOR ALL SMT ASSEMBLY METHODS.
- *PACKAGE : 1000PCS / REEL.
- *ROHS COMPLIANT.



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 Intensity (IF=350mA)[1] cd		Wavelength nm λ P	Viewing Angle 2 θ 1/2 [2]
				min.	typ.		
XZMDH102W	Red	InGaAlP	Water Clear	19	25	640	30°

Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Value	Unit
Power dissipation	Pt	1.2	W
Reverse Voltage	VR	12	V
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 [4]	Rth	60	°C/W

Notes:

- 1.Results from mounting on PC board FR4(pad size≥100mm² per pad).
2. θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
- 3.1/10 Duty Cycle, 0.1ms Pulse Width.
- 4.24mm² of Cu pad per emitter at cathode lead is recommend for lowest thermal Resistance.

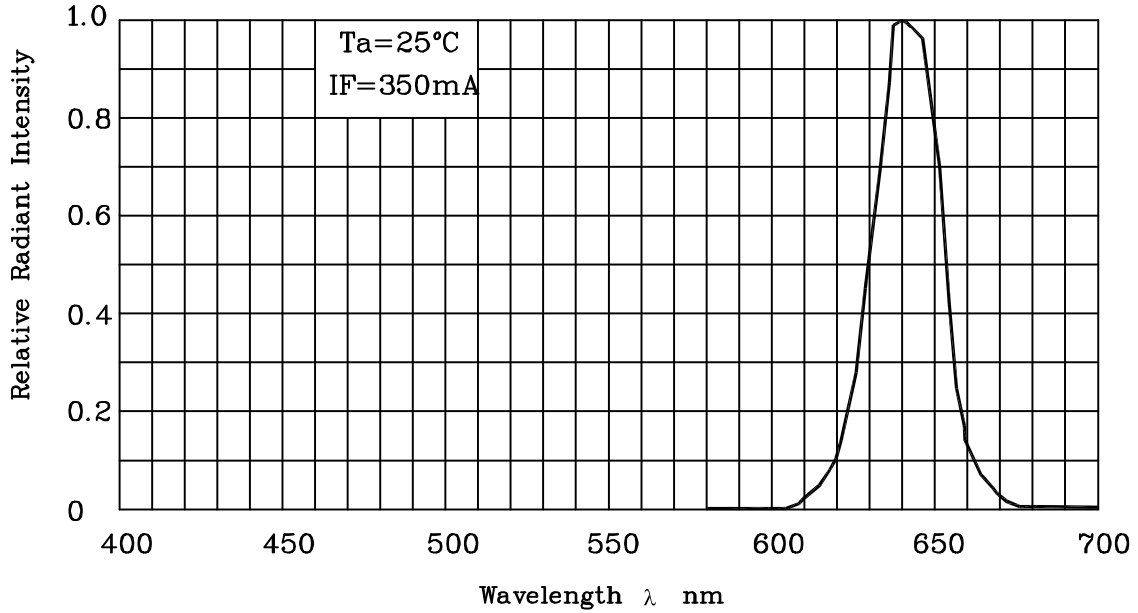
Electrical / Optical Characteristics at TA=25°C

Parameter	Symbol	Value	Unit
Wavelength at peak emission IF=350mA	λ peak	640	nm
Dominate Wavelength IF=350mA	λ dom	625	nm
Spectral bandwidth at 50%Φ REL MAX IF=350mA	$\Delta\lambda$	30	nm
Viewing angle at 50%ΦV	θ	30	°
Forward Voltage IF=350mA	V _F	2.4	V
Reverse Current (V _R =12V)	I _R	10	μ A
Temperature coefficient of I _{peak} IF=350mA, -10°C ≤ T ≤ 100°C	TC λ peak	0.14	nm/°C
Temperature coefficient of I _{dom} IF=350mA, -10°C ≤ T ≤ 100°C	TC λ dom	0.12	nm/°C
Temperature coefficient of V _F IF=350mA, -10°C ≤ T ≤ 100°C	TC _V	-3.0	mV/°C

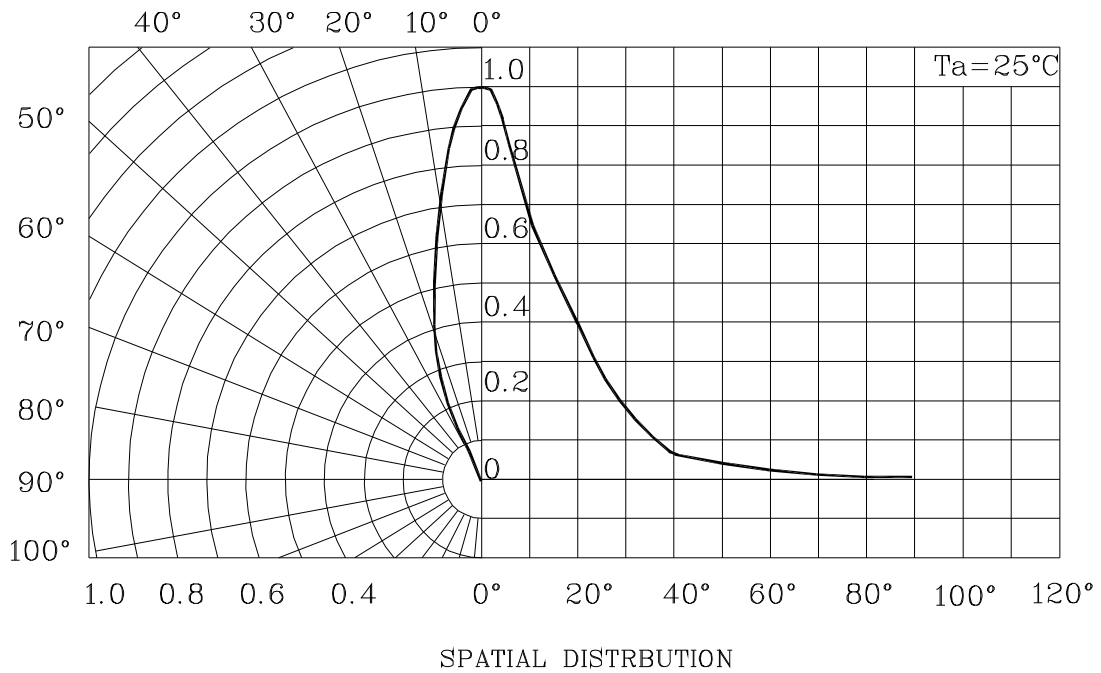
SELECTION CODE FOR SUPER BRIGHT LEDS.

Brightness Group	Luminous Intensity I _v (cd)		Brightness Group	Luminous Intensity I _v (cd)	
	MIN.	MAX.		MIN.	MAX.
ZN	12	20	ZS	32	50
ZP	16	24	ZT	40	60
ZQ	20	32	ZU	50	80
ZR	24	40	ZV	60	100

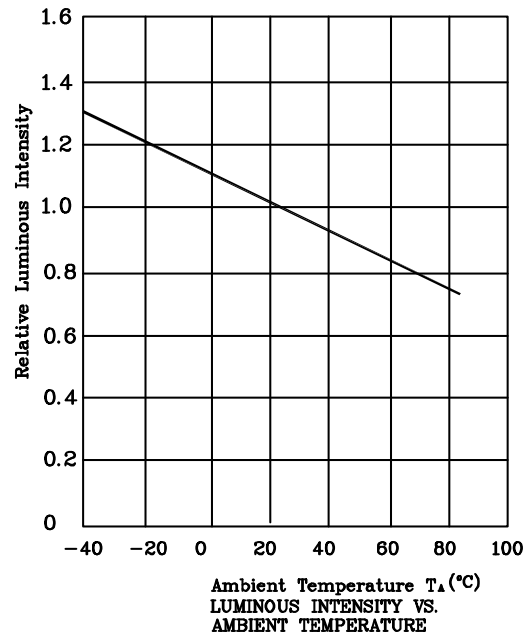
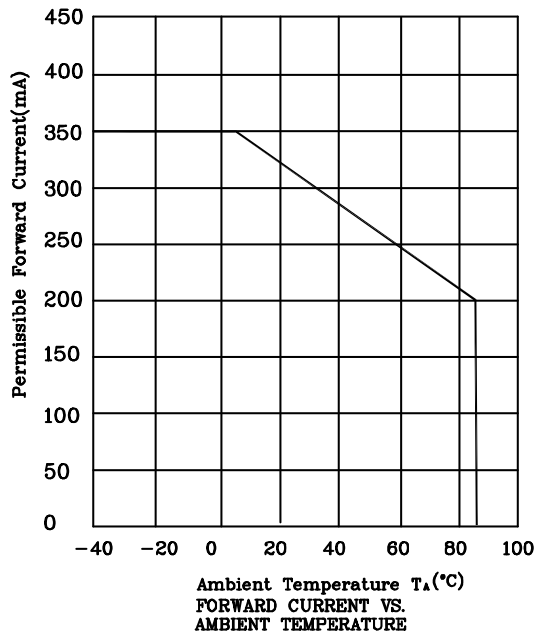
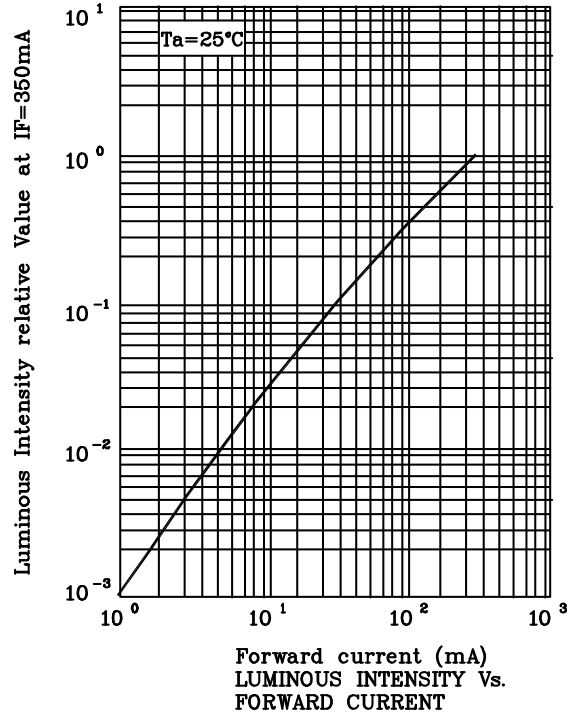
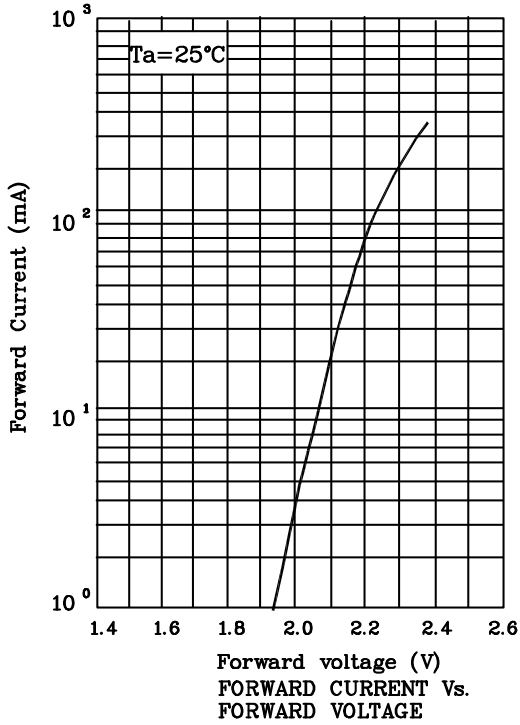
XZMDH102W



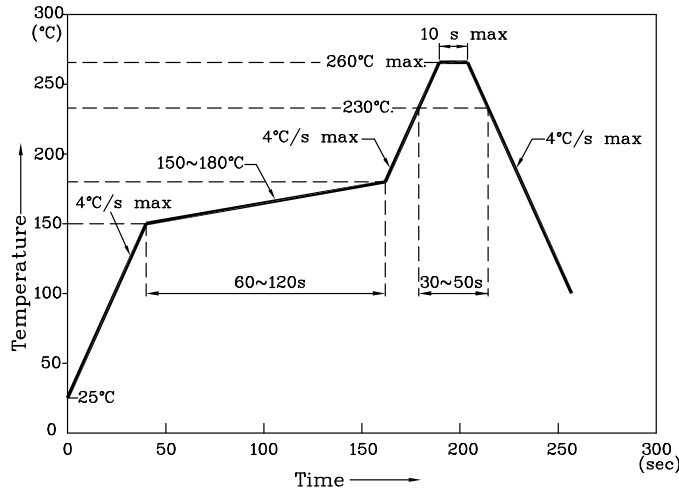
RELATIVE INTENSITY Vs. WAVELENGTH



XZMDH102W



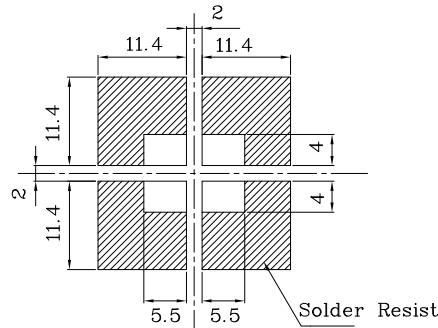
Reflow Soldering Profile For Lead-free SMT Process.



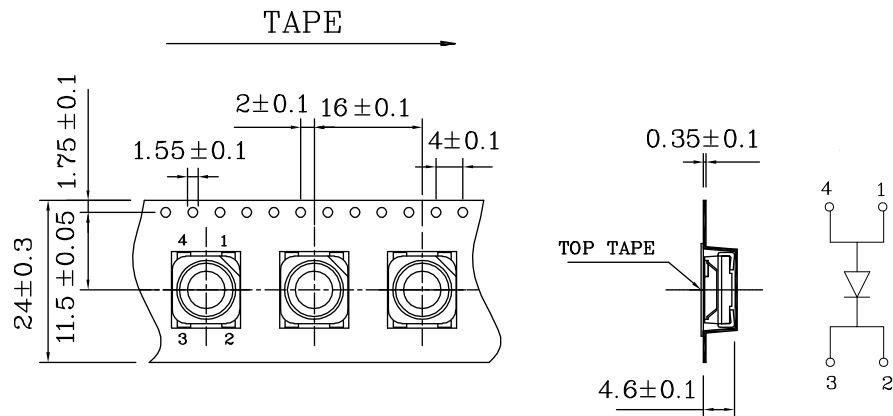
NOTES:

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)

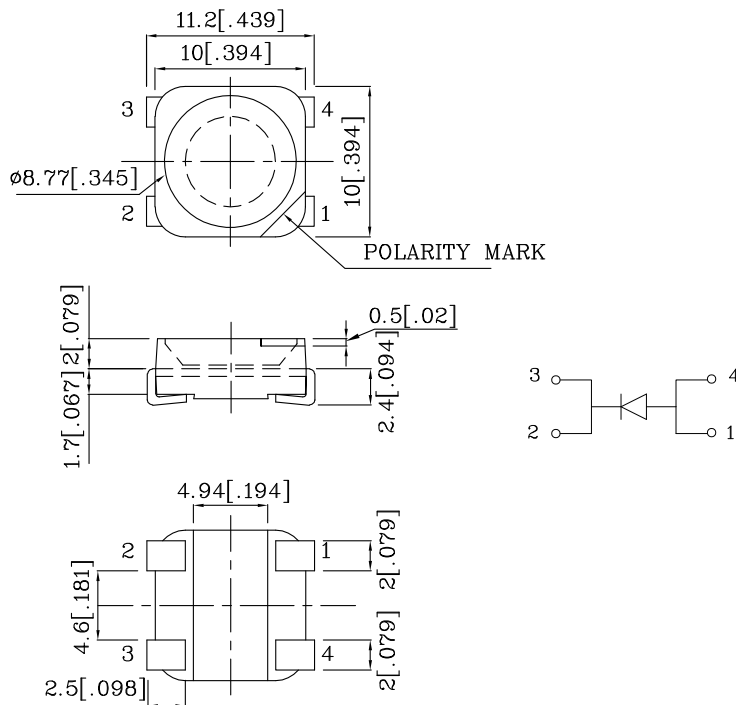


PRELIMINARY SPEC

XZMDH95W

Features

- *P-LCC-4 PACKAGE.
- *SINGLE COLOR.
- *HIGH LUMINANCE.
- *SUITABLE FOR ALL SMT ASSEMBLY METHODS.
- *PACKAGE : 1000PCS / REEL.
- *ROHS COMPLIANT.



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 Intensity (IF=350mA)[1] cd		Wavelength nm λ P	Viewing Angle 2θ 1/2 [2]
				min.	typ.		
XZMDH95W	Red	InGaAlP	Water Clear	15	20	640	120°

Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Value	Unit
Power dissipation	Pt	1.2	W
Reverse Voltage	VR	12	V
Operating Temperature	Top	-40 To +85	°C
Storage Temperature	Tstg	-40 To +85	°C
Junction temperature IF=350mA	TJ	+90	°C
DC Forward Current[1]	IF	350	mA
Peak Forward Current [3]	IFM	500	mA
Thermal resistance [4]	Rth	60	°C/W

Notes:

- Results from mounting on PC board FR4(pad size≥100mm² per pad).
- θ 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.
- 24mm² of Cu pad per emitter at cathode lead is recommend for lowest thermal Resistance.

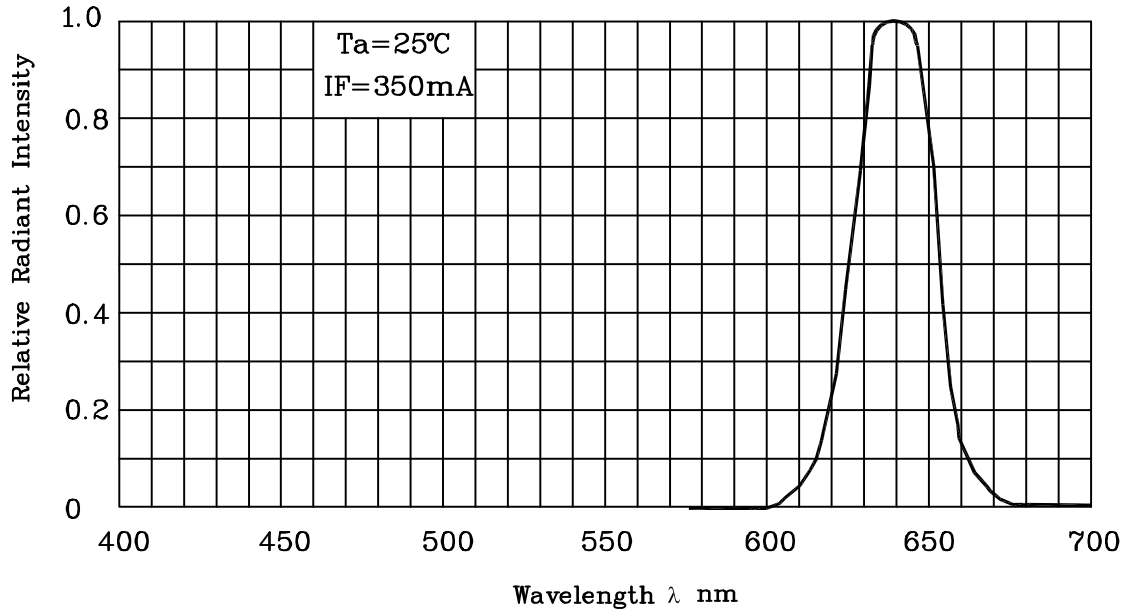
Electrical / Optical Characteristics at TA=25°C

Parameter	Symbol	Value	Unit
Wavelength at peak emission IF=350mA	λ peak	640	nm
Dominate Wavelength IF=350mA	λ dom	625	nm
Spectral bandwidth at 50%Φ REL MAX IF=350mA	$\Delta\lambda$	30	nm
Viewing angle at 50%ΦV	θ	120	°
Forward Voltage IF=350mA	V _F	2.4	V
Reverse Current (V _R =12V)	I _R	10	μ A
Temperature coefficient of I _{peak} IF=350mA, -10°C ≤ T ≤ 100°C	TC λ peak	0.14	nm/°C
Temperature coefficient of I _{dom} IF=350mA, -10°C ≤ T ≤ 100°C	TC λ dom	0.12	nm/°C
Temperature coefficient of V _F IF=350mA, -10°C ≤ T ≤ 100°C	TC _V	-3.0	mV/°C

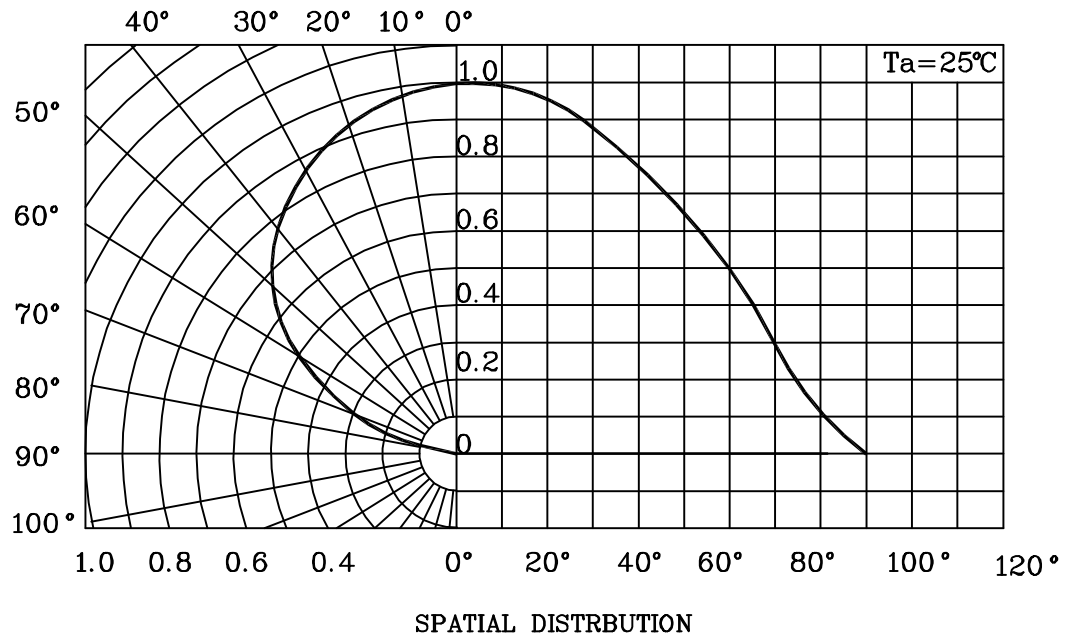
SELECTION CODE FOR SUPER BRIGHT LEDS.

Brightness Group	Luminous Intensity I _v (cd)		Brightness Group	Luminous Intensity I _v (cd)	
	MIN.	MAX.		MIN.	MAX.
ZN	12	20	ZS	32	50
ZP	16	24	ZT	40	60
ZQ	20	32	ZU	50	80
ZR	24	40	ZV	60	100

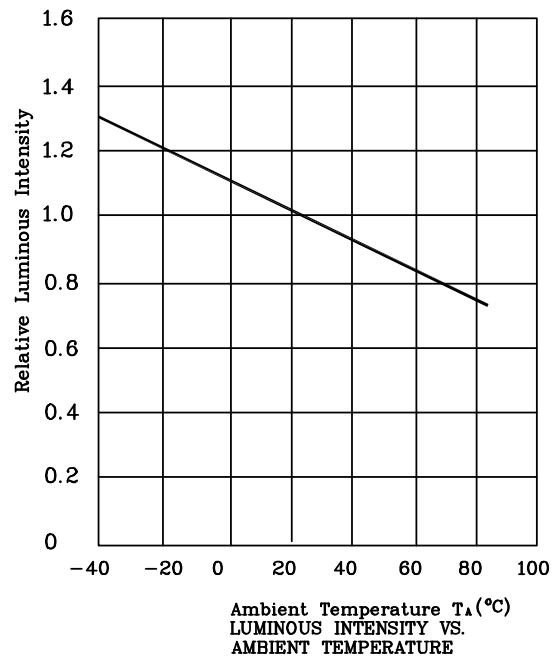
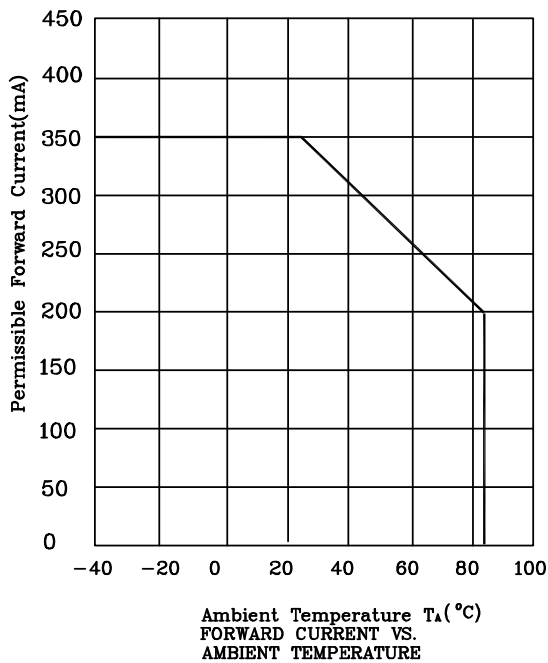
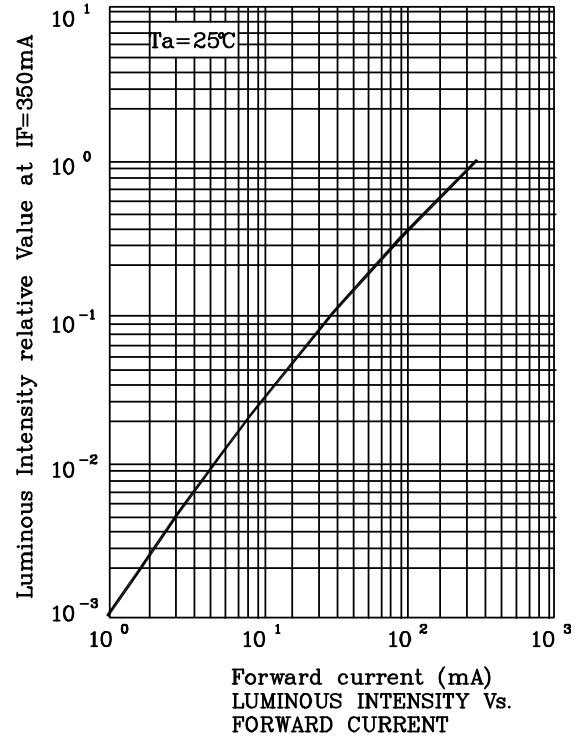
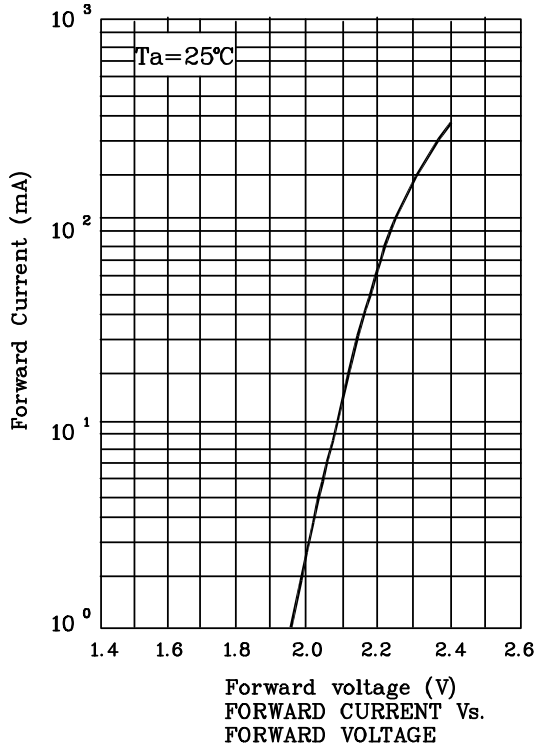
XZMDH95W



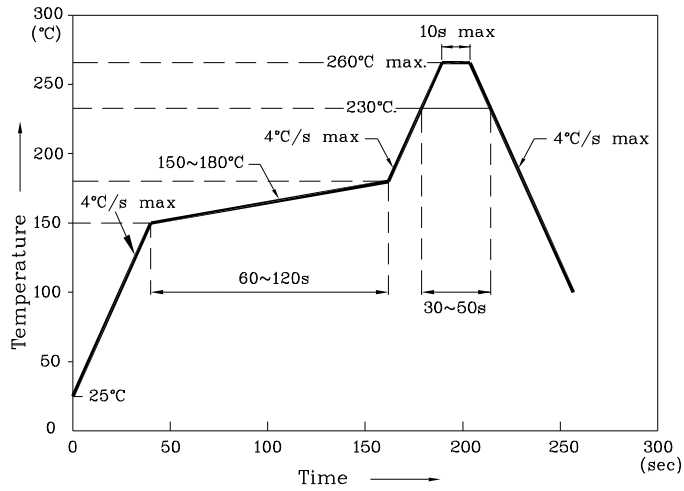
RELATIVE INTENSITY Vs. WAVELENGTH



XZMDH95W



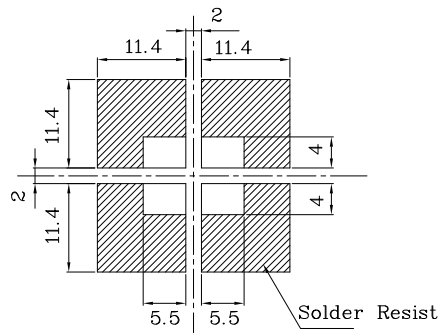
Reflow Soldering Profile For Lead-free SMT Process.



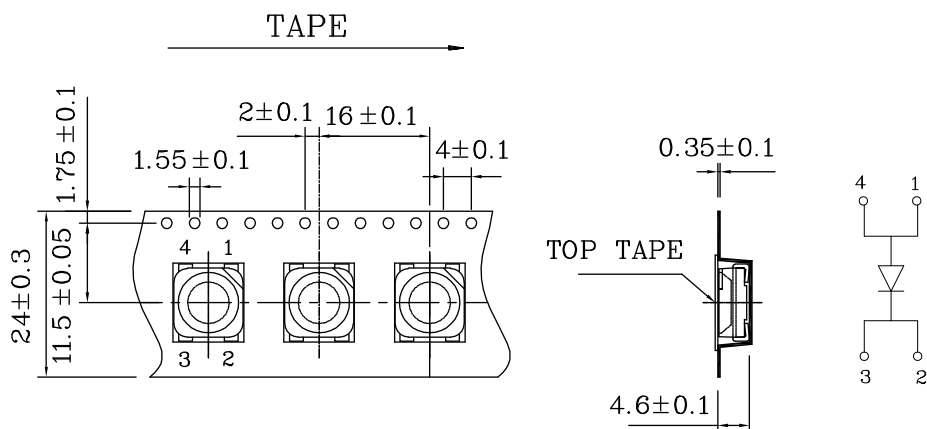
Notes:

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)

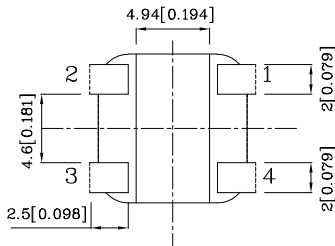
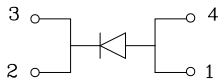
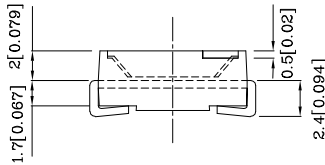
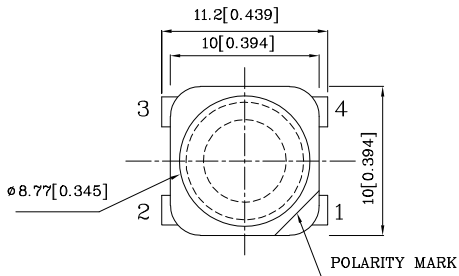


PRELIMINARY SPEC

XZMYH102W

Features

- *P-LCC-4 PACKAGE.
- *SINGLE COLOR.
- *HIGH LUMINANCE.
- *SUITABLE FOR ALL SMT ASSEMBLY METHODS.
- *PACKAGE : 1000PCS / REEL.
- *ROHS COMPLIANT.



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 Intensity (IF=350mA)[1] cd		Wavelength nm λ P	Viewing Angle 2 θ 1/2 [2]
				min.	typ.		
XZMYH102W	Yellow	InGaAlP	Water Clear	14	19	590	30°

Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Value	Unit
Power dissipation	Pt	1.2	W
Reverse Voltage	VR	12	V
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 [4]	Rth	80	°C/W

Notes:

- 1.Results from mounting on PC board FR4(pad size \geq 100mm² per chip).
2. θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
- 3.1/10 Duty Cycle, 0.1ms Pulse Width.
- 4.24mm² of Cu pad per emitter at cathode lead is recommend for lowest thermal Resistance.

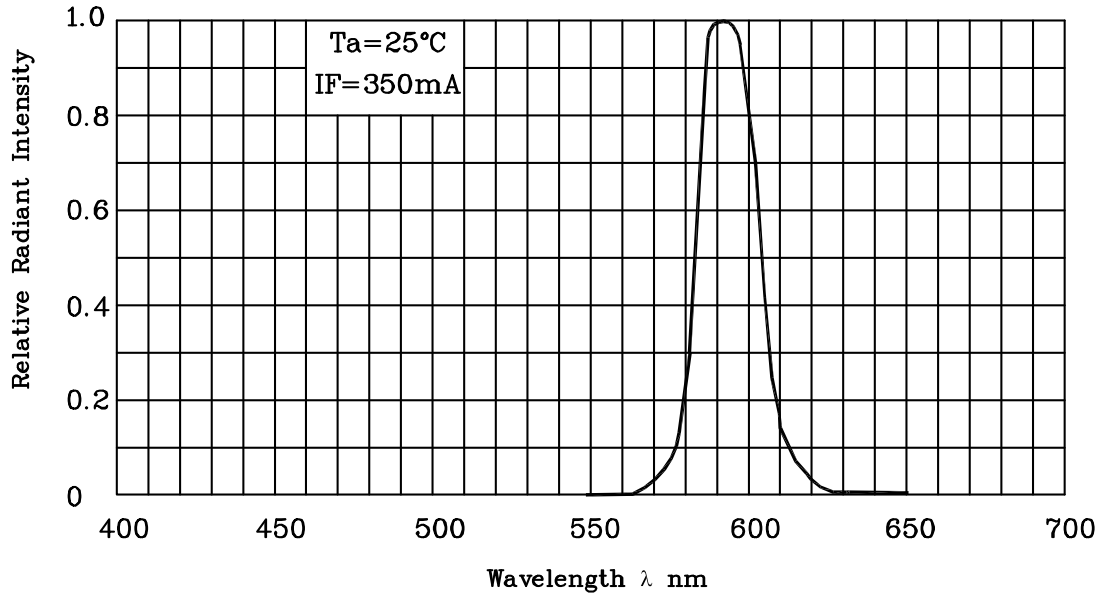
Electrical / Optical Characteristics at TA=25°C

Parameter	Symbol	Value	Unit
Wavelength at peak emission IF=350mA	λ peak	590	nm
Dominate Wavelength IF=350mA	λ dom	588	nm
Spectral bandwidth at 50%Φ REL MAX IF=350mA	$\Delta\lambda$	20	nm
Viewing angle at 50%ΦV	θ	30	°
Forward Voltage IF=350mA	V _F	2.4	V
Reverse Current (V _R =12V)	I _R	10	μ A
Temperature coefficient of I _{peak} IF=350mA, -10°C ≤ T ≤ 100°C	TC λ peak	0.15	nm/°C
Temperature coefficient of I _{dom} IF=350mA, -10°C ≤ T ≤ 100°C	TC λ dom	0.13	nm/°C
Temperature coefficient of V _F IF=350mA, -10°C ≤ T ≤ 100°C	TC _V	-2.0	mV/°C

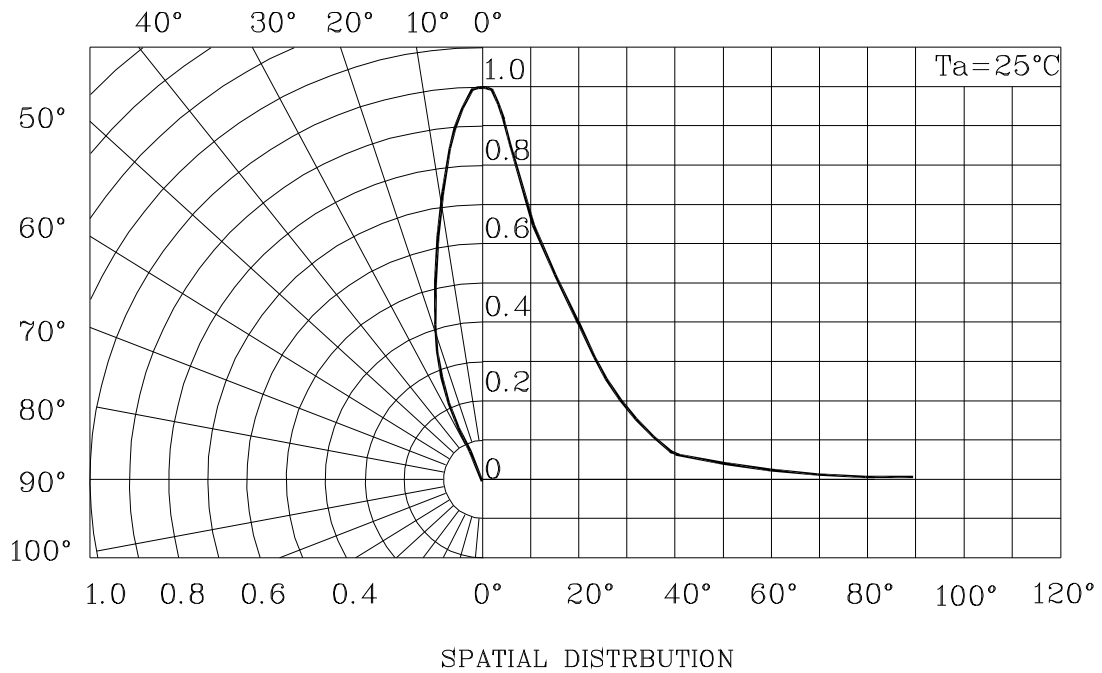
SELECTION CODE FOR SUPER BRIGHT LEDS.

Brightness Group	Luminous Intensity I _v (cd)		Brightness Group	Luminous Intensity I _v (cd)	
	MIN.	MAX.		MIN.	MAX.
ZE	5.7	7.5	ZM	10	16
ZF	6.7	8.5	ZN	12	20
ZG	7.5	10	ZP	16	24
ZH	8	12	ZQ	20	32

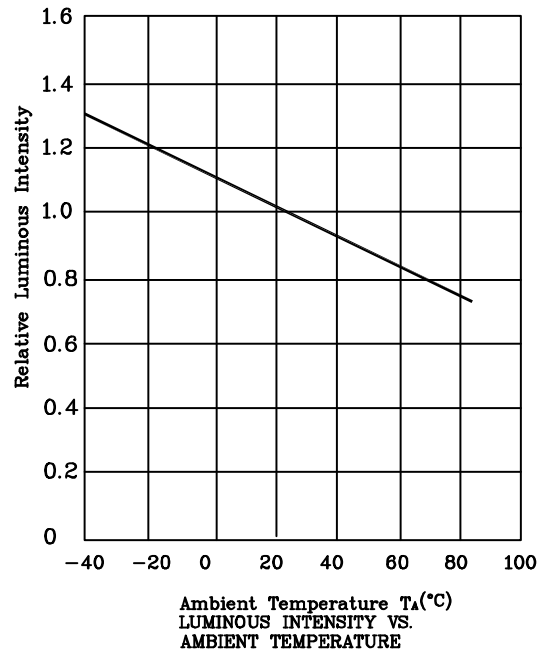
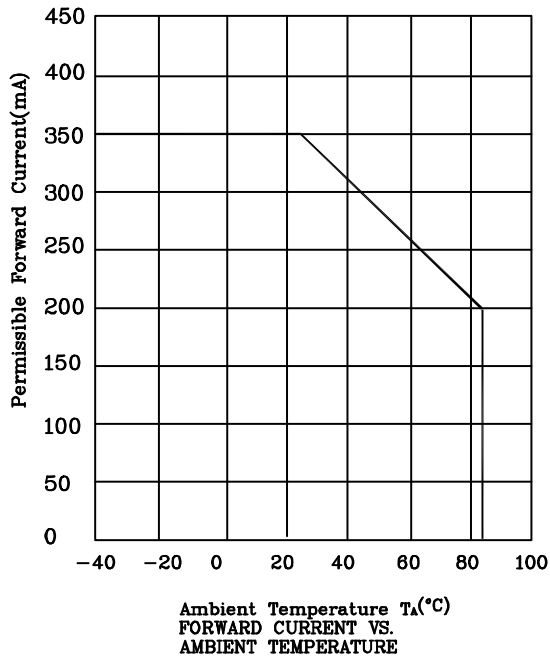
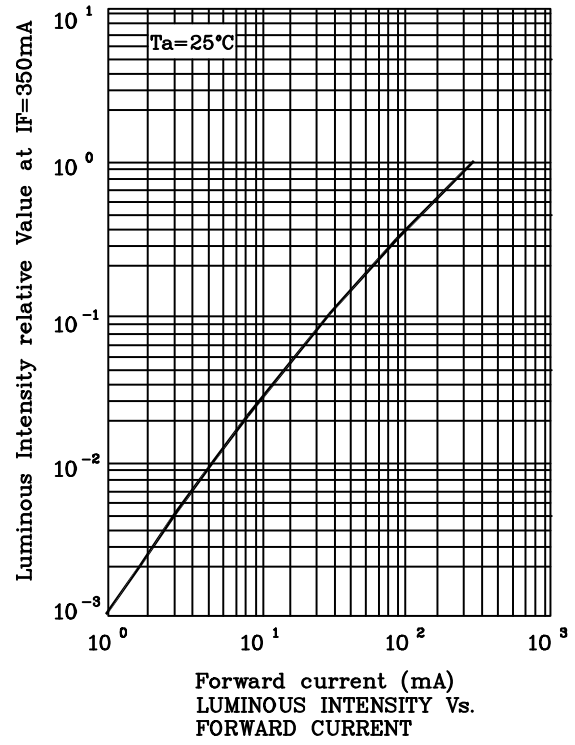
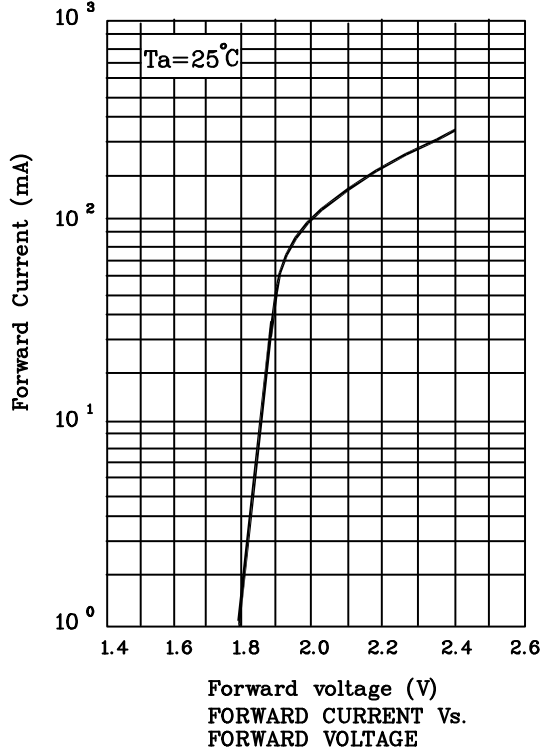
XZMYH102W



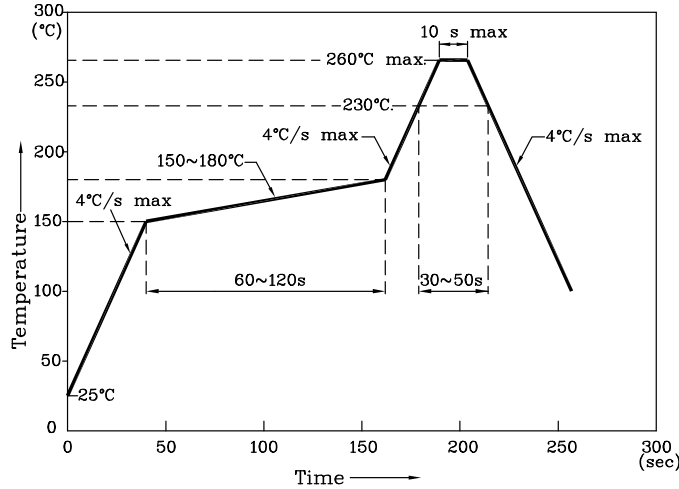
RELATIVE INTENSITY Vs. WAVELENGTH



XZMYH102W



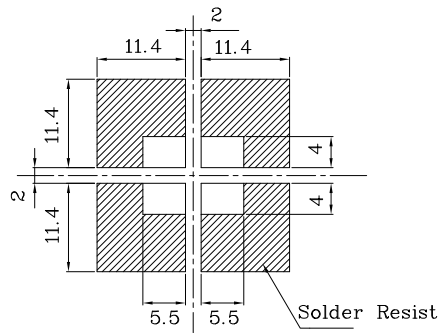
Reflow Soldering Profile For Lead-free SMT Process.



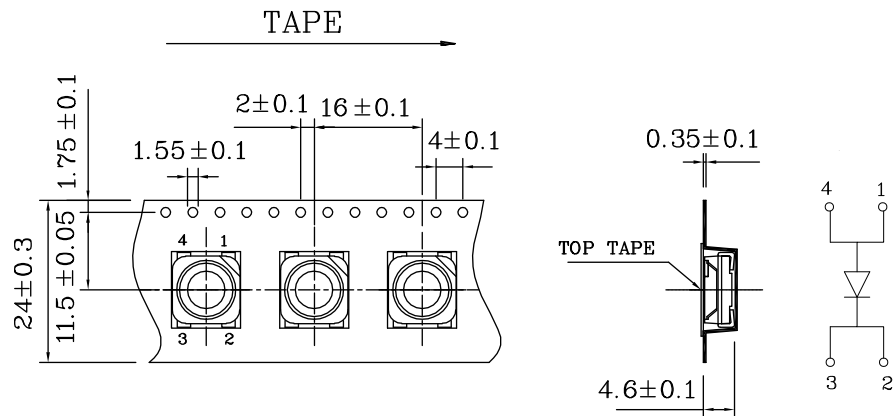
NOTES:

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)

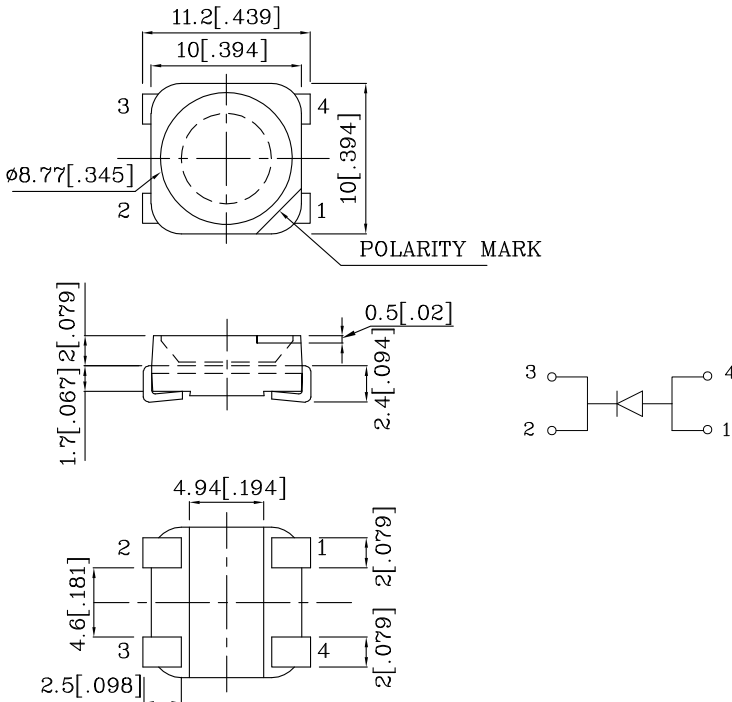


PRELIMINARY SPEC

XZMYH95W

Features

- *P-LCC-4 PACKAGE.
- *SINGLE COLOR.
- *HIGH LUMINANCE.
- *SUITABLE FOR ALL SMT ASSEMBLY METHODS.
- *PACKAGE : 1000PCS / REEL.
- *ROHS COMPLIANT.



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 Intensity (IF=350mA)[1] cd		Wavelength nm λ P	Viewing Angle 2θ 1/2 [2]
				min.	typ.		
XZMYH95W	Yellow	InGaAlP	Water Clear	6	8.5	590	120°

Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Value	Unit
Power dissipation	Pt	1.2	W
Reverse Voltage	VR	12	V
Operating Temperature	Top	-40 To +85	°C
Storage Temperature	Tstg	-40 To +85	°C
DC Forward Current[1]	IF	350	mA
Junction temperature IF=350mA	TJ	+95	°C
Peak Forward Current [3]	IFM	500	mA
Thermal resistance [4]	Rth	80	°C/W

Notes:

- 1.Results from mounting on PC board FR4(pad size \geq 100mm² per chip).
2. θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
- 3.1/10 Duty Cycle, 0.1ms Pulse Width.
- 4.24mm² of Cu pad per emitter at cathode lead is recommend for lowest thermal Resistance.

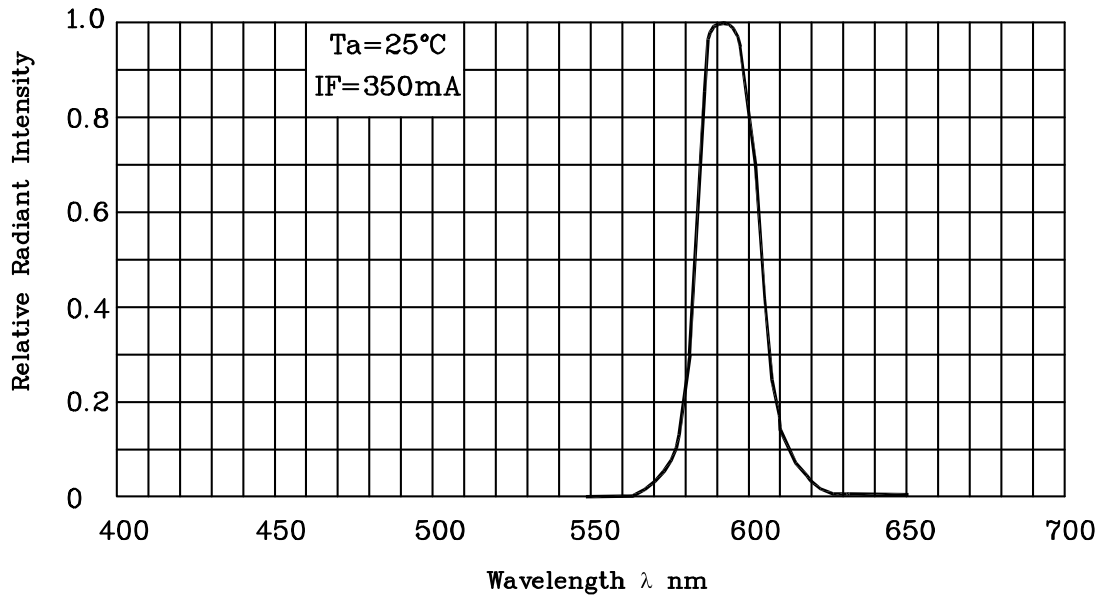
Electrical / Optical Characteristics at TA=25°C

Parameter	Symbol	Value	Unit
Wavelength at peak emission IF=350mA	λ peak	590	nm
Dominate Wavelength IF=350mA	λ dom	588	nm
Spectral bandwidth at 50%Φ REL MAX IF=350mA	$\Delta\lambda$	20	nm
Viewing angle at 50%ΦV	θ	120	°
Forward Voltage IF=350mA	V _F	2.4	V
Reverse Current (V _R =12V)	I _R	10	μ A
Temperature coefficient of I _{peak} IF=350mA, -10°C ≤ T ≤ 100°C	TC λ peak	0.15	nm/°C
Temperature coefficient of I _{dom} IF=350mA, -10°C ≤ T ≤ 100°C	TC λ dom	0.13	nm/°C
Temperature coefficient of V _F IF=350mA, -10°C ≤ T ≤ 100°C	TC _V	-2.0	mV/°C

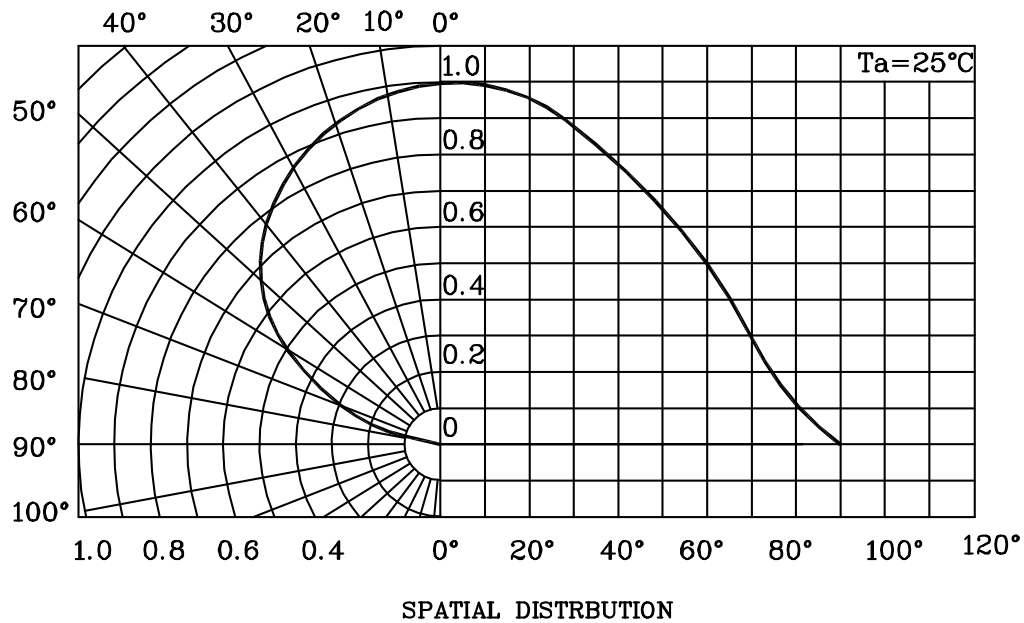
SELECTION CODE FOR SUPER BRIGHT LEDS.

Brightness Group	Luminous Intensity I _v (cd)		Brightness Group	Luminous Intensity I _v (cd)	
	MIN.	MAX.		MIN.	MAX.
ZE	5.7	7.5	ZM	10	16
ZF	6.7	8.5	ZN	12	20
ZG	7.5	10	ZP	16	24
ZH	8	12	ZQ	20	32

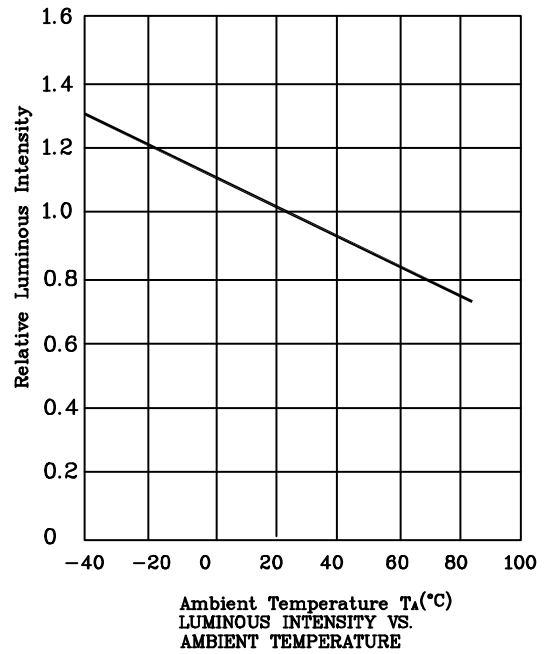
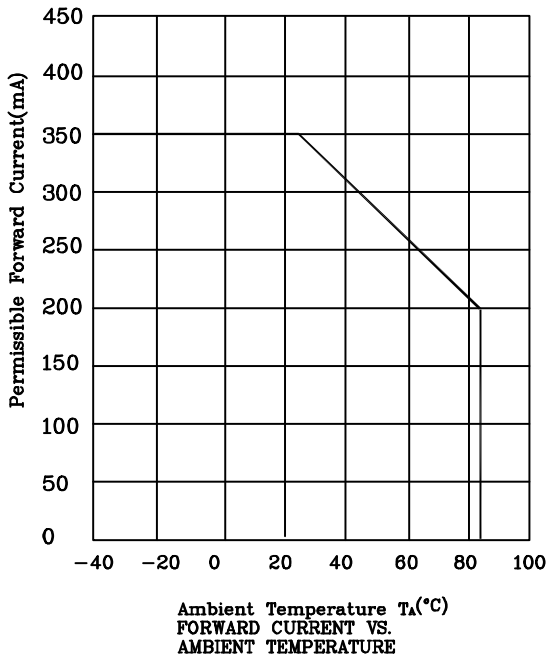
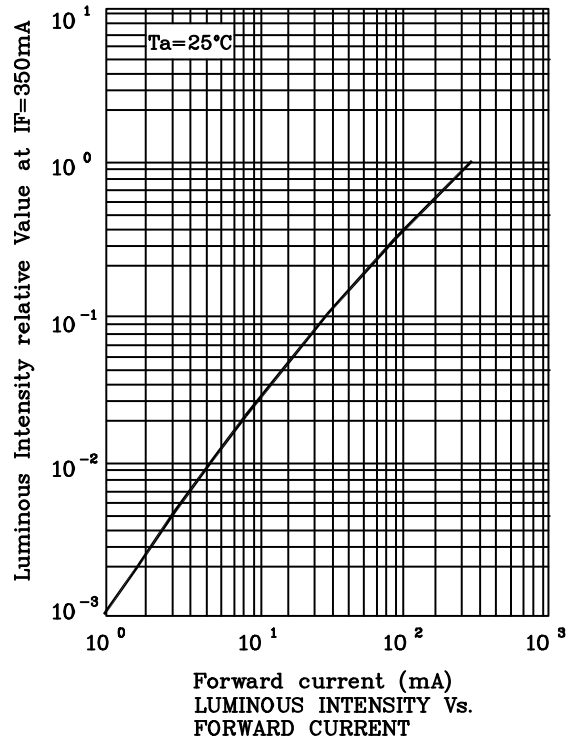
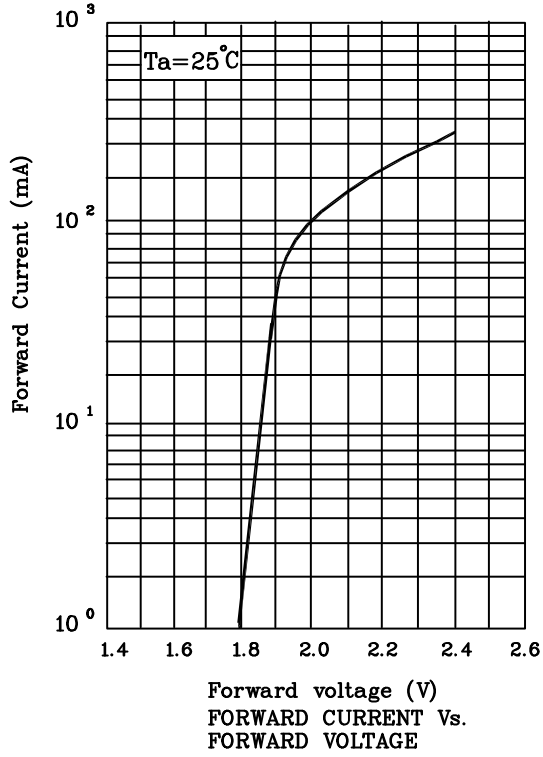
XZMYH95W



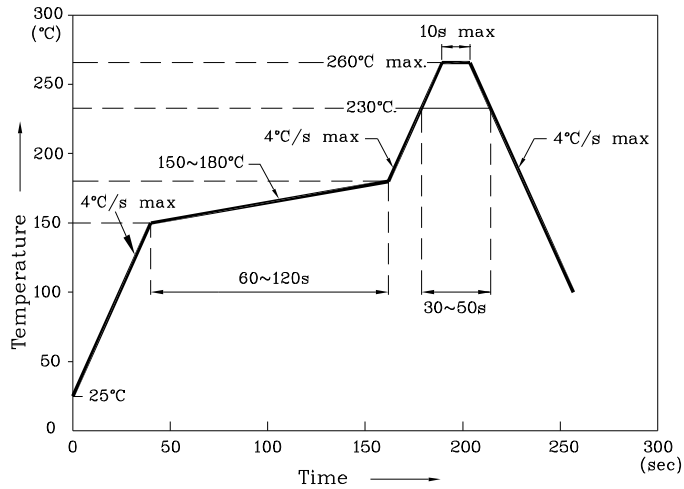
RELATIVE INTENSITY Vs. WAVELENGTH



XZMYH95W



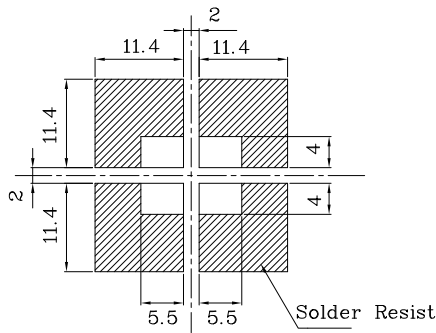
Reflow Soldering Profile For Lead-free SMT Process.



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)

