## Features

- 4.5x2mm SMT LED,0.5mm THICKNESS
- LOW POWER CONSUMPTION.
- IDEAL FOR BACK LIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 1000PCS/REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
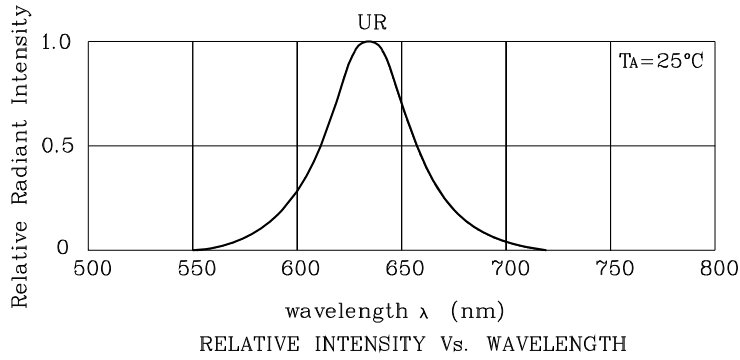- RoHS COMPLIANT.

Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.2(0.008") unless otherwise noted.
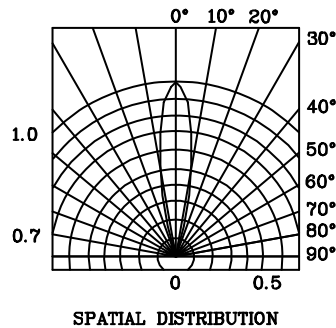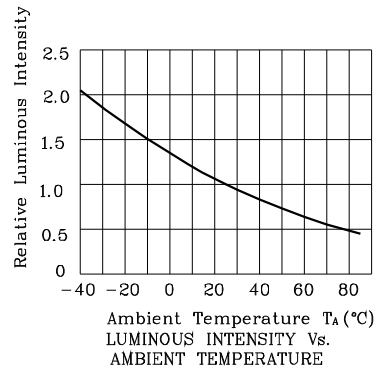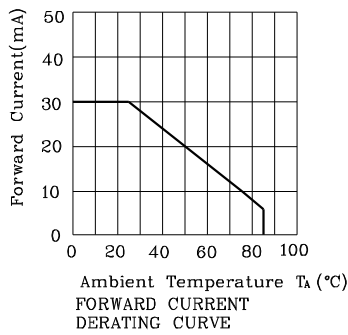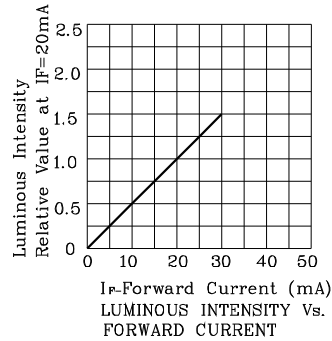3.Specifications are subject to change without notice.
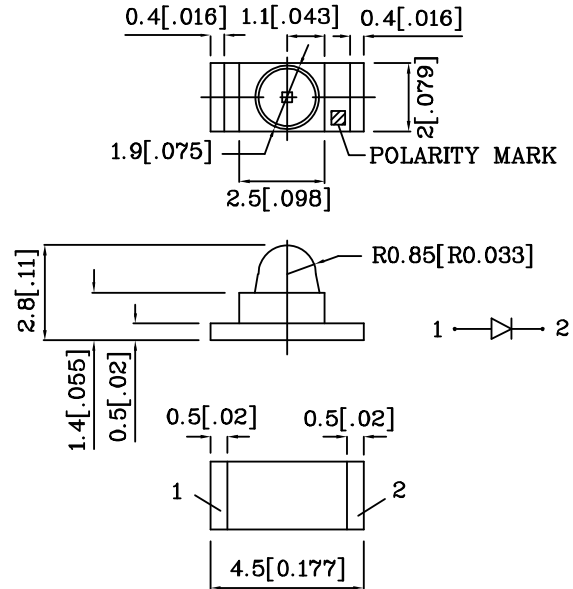
Absolute Maximum Ratings (TA=25°C)		UR (GaAsP/GaP)	Unit
Reverse Voltage	VR	5	V
Forward Current	IF	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	iFS	160	mA
Power Dissipation	PT	75	mW
Operating Temperature	TA	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +85	

Operating Characteristics (TA=25°C)		UR (GaAsP/GaP)	Unit
Forward Voltage (Typ.) (IF=20mA)	VF	2.0	V
Forward Voltage (Max.) (IF=20mA)	VF	2.5	V
Reverse Current (Max.) (VR=5V)	IR	10	uA
Wavelength Of Peak Emission (Typ.) (IF=20mA)	λ P	627	nm
Wavelength Of Dominant Emission (Typ.) (IF=20mA)	λ D	625	nm
Spectral Line Full Width At Half-Maximum (Typ.) (IF=20mA)	Δλ	45	nm
Capacitance (Typ.) (VF=0V, f=1MHz)	C	15	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=20mA) mcd min.	typ.	Wavelength nm λ P	Viewing Angle 2 θ 1/2
XZUR77W	Red	GaAsP/GaP	Water Clear	10	59	627	20 °

UR

RELATIVE INTENSITY Vs. WAVELENGTH

TA=25℃

Relative Radiant Intensity

wavelength λ (nm)

❖ **UR**

Forward Current(mA)

Forward Voltage(V)
FORWARD CURRENT Vs.
FORWARD VOLTAGE

Luminous Intensity
Relative Value at IF=20mA

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

Forward Current(mA)

Ambient Temperature TA (℃)
FORWARD CURRENT
DERATING CURVE

Relative Luminous Intensity

Ambient Temperature TA (℃)
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

SPATIAL DISTRIBUTION
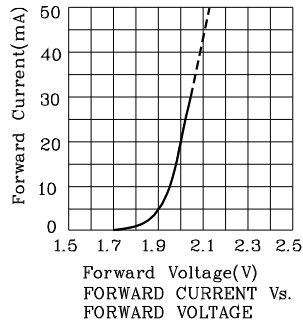
Reflow Soldering Profile For Lead−free SMT Process.

300
(°C)

10 s max

250

260°C max

230°C

200

4°C/s max

150~180°C

4°C/s max

150

4°C/s max

Temperature

100

60~120s

30~50s

50

25°C

0

0   50   100   150   200   250   300
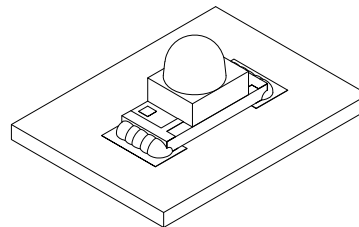(sec)

Time
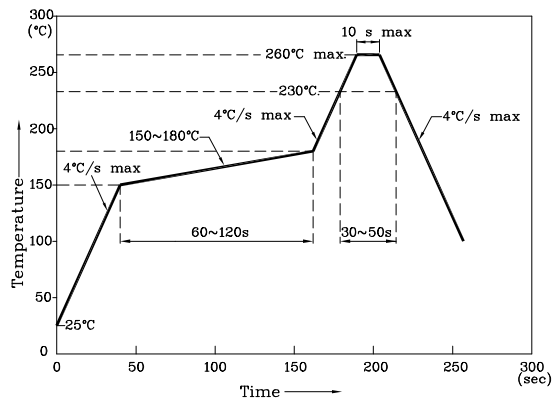
NOTES:
1. Maximum soldering temperature should not exceed 260°c.
2. Recommended reflow temperature: 145°c−260°c.
3. Do not put stress to the epoxy resin during high temperatures conditions.
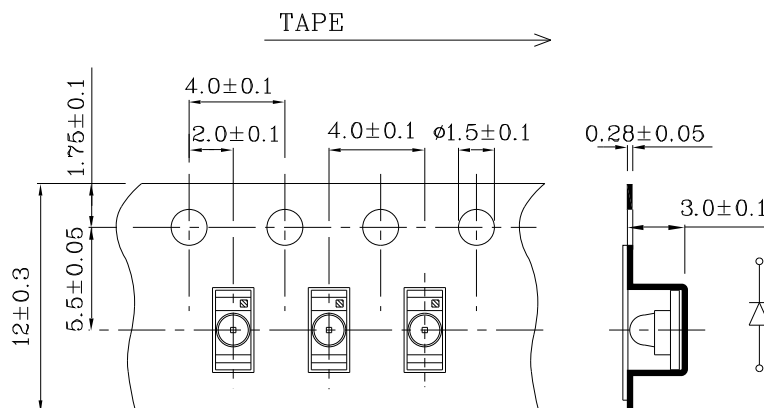
❖ **Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)**
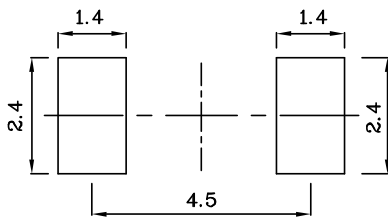
❖ **The device has a single mounting surface. The device must be mounted according to the specifications.**

1.4   1.4

2.4   2.4

4.5

❖ **Tape Specification (Units : mm)**

TAPE

1.75±0.1

4.0±0.1

2.0±0.1   4.0±0.1   ⌀1.5±0.1   0.28±0.05
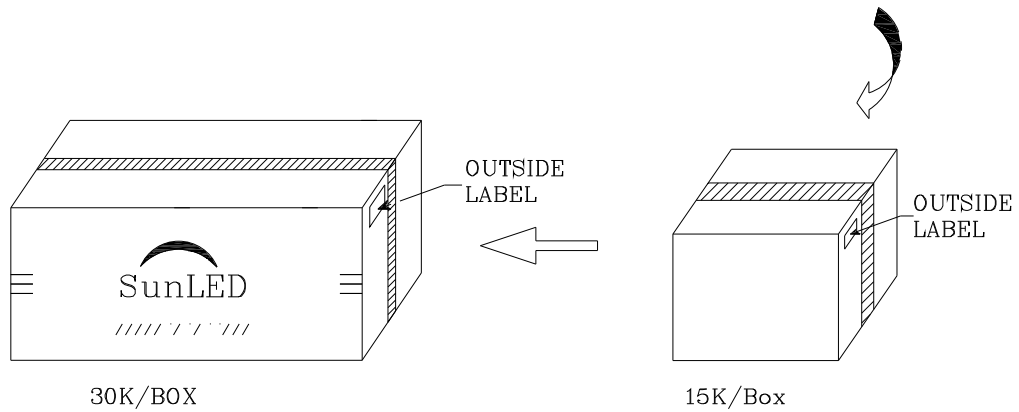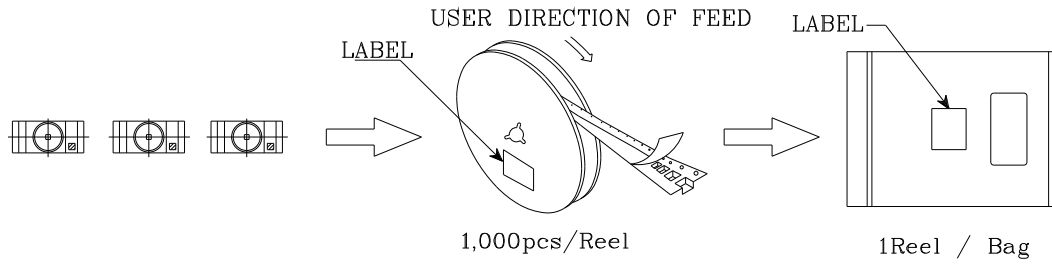
3.0±0.1

12±0.3   5.5±0.05

Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux or wavelength),
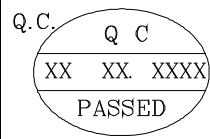
the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm

2. Luminous Intensity / luminous flux: +/-15%

3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

PACKING & LABEL SPECIFICATIONS   **XZUR77W**

USER DIRECTION OF FEED
LABEL
1,000pcs/Reel

LABEL
1Reel / Bag

30K/BOX
OUTSIDE LABEL

15K/Box
OUTSIDE LABEL

SunLED

Q.C.
Q C
XX XX. XXXX
PASSED

P/NO : XZxxx77x

QTY : 1,000 pcs   CODE: XXX

S/N : XX

LOT NO:

XXXXXXXXXXXXXXXXXXXXXX

RoHS Compliant