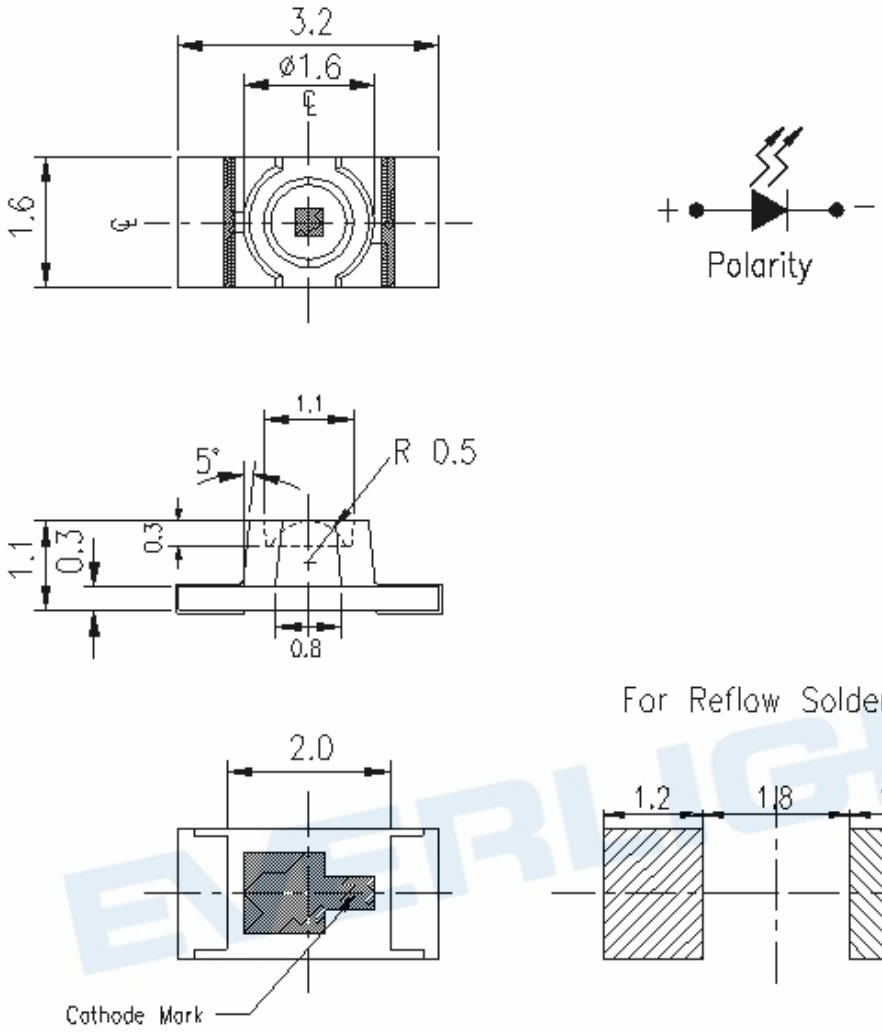
## Package Dimensions

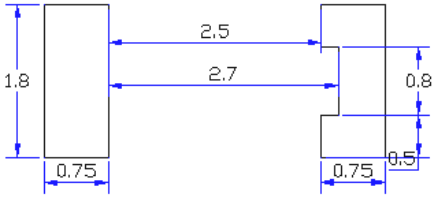



**Notes:** 1.All dimensions are in millimeters

2.Tolerances unless dimensions ±0.1mm

3.Suggested pad dimension is just for reference only

Please modify the pad dimension based on individual need




4.Suggested pad dimension is just for reference only

Please modify the pad dimension based on individual need

## Absolute Maximum Ratings (Ta=25℃)

| Parameter | Symbol | Rating | Units |
|---|---|---|---|
| Continuous Forward Current | $I_F$ | 65 | mA |
| Reverse Voltage | $V_R$ | 5 | V |
| Operating Temperature | $T_{opr}$ | -25 ~ +85 | ℃ |
| Storage Temperature | $T_{stg}$ | -40 ~ +85 | ℃ |
| Power Dissipation at(or below) 25℃ Free Air Temperature | $P_d$ | 130 | mW |
| Soldering Temperature | Tsol | Reflow Soldering : 260 ℃ for 10 sec.<br>Hand Soldering : 350 ℃ for 3 sec. | |

**Notes:** *1 Soldering time≦5 seconds.

## Electro-Optical Characteristics (Ta=25℃)

| Parameter | Symbol | Condition | Min. | Typ. | Max. | Units |
|---|---|---|---|---|---|---|
| Radiant Intensity | Ie | $I_F$=20mA | 0.5 | 1.5 | -- | mW /sr |
| | | $I_F$=100mA Pulse Width≦100 μs ,Duty≦1% | -- | 7.5 | -- | |
| Peak Wavelength | $\lambda_p$ | $I_F$=20mA | -- | 940 | -- | nm |
| Spectral Bandwidth | $\Delta\lambda$ | $I_F$=20mA | -- | 45 | -- | nm |
| Forward Voltage | $V_F$ | $I_F$=20mA | -- | 1.2 | 1.5 | V |
| | | $I_F$=100mA Pulse Width≦100 μs ,Duty≦1% | -- | 1.4 | 1.8 | |
| | | $I_F$=1A | -- | 2.6 | 4.0 | |
| Reverse Current | $I_R$ | $V_R$=5V | -- | -- | 10 | μA |
| View Angle | $2\theta$ 1/2 | $I_F$=20mA | -- | 160 | -- | deg |

## Typical Electro-Optical Characteristics Curves

Fig.1 Forward Current vs. Ambient Temperature

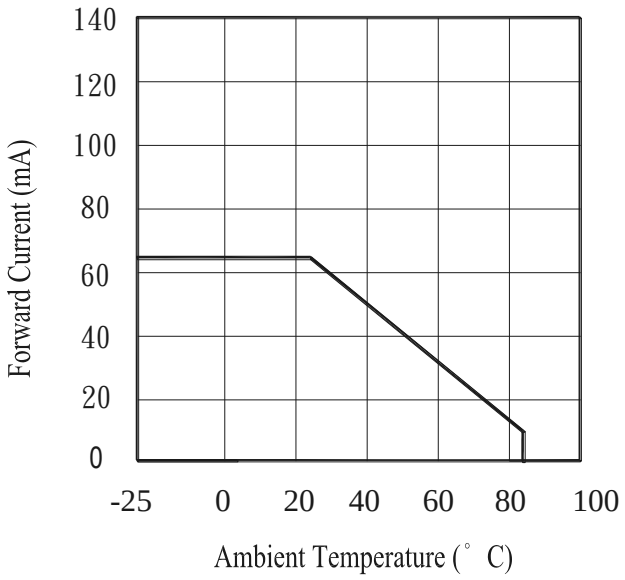



Fig.2 Spectral Distribution

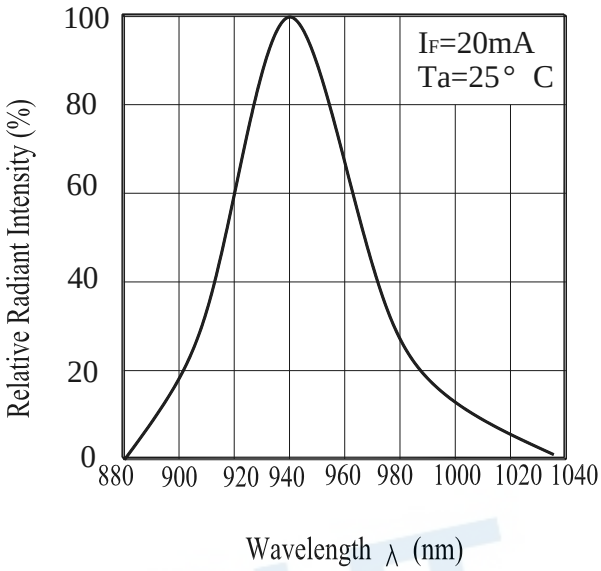



Fig.3 Relative Intensity vs Forward Current

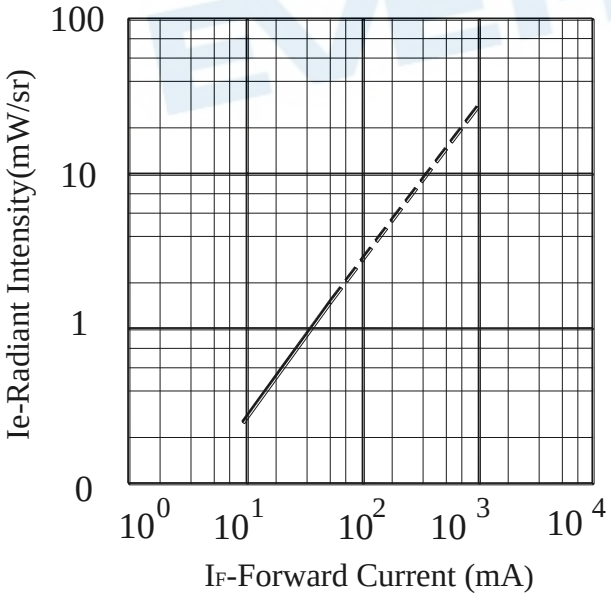
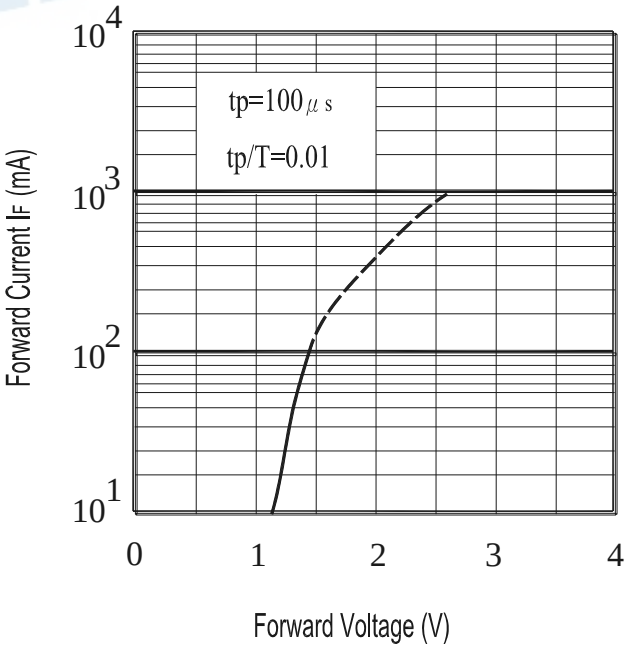
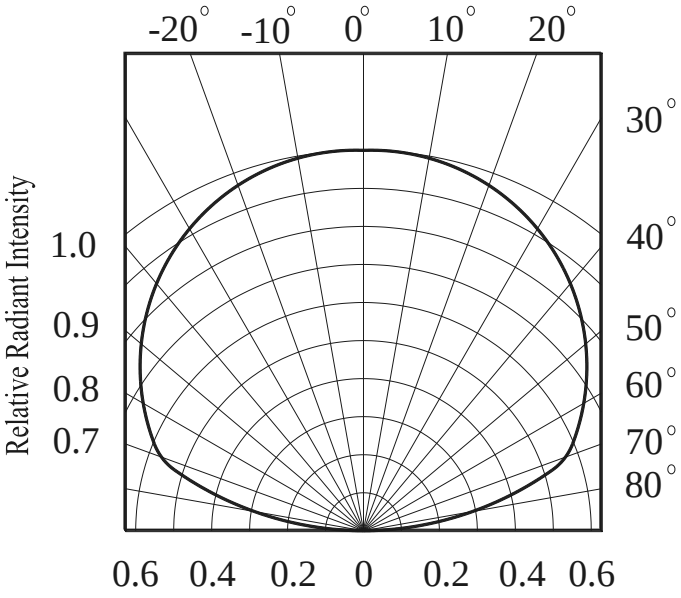



Fig.4 Forward Current vs Forward Voltage



## Typical Electro-Optical Characteristics Curves

Fig.5 Relative Radiant Intensity vs
Angular Displacement



## Precautions For Use

1. Over-current-proof

   Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change (Burn out will happen).

2. Storage

   2.1 Do not open moisture proof bag before the products are ready to use.

   2.2 Before opening the package, the LEDs should be kept at 10℃~30℃ and 90%RH or less.

   2.3 The LEDs suggested be used within one year.

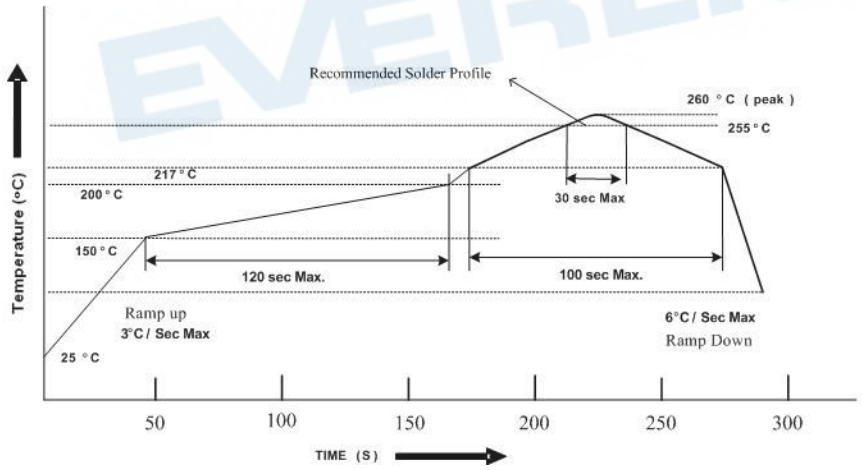
   2.4 After opening the package, the devices must be stored at 10°C~30°C and ≤ 60%RH, and used within 168 hours (floor life). If unused LEDs remain, it should be stored in moisture proof packages.

   2.5 If the moisture absorbent material (desiccant material) has faded or unopened bag haexceeded the shelf life or devices (out of bag) have exceeded the floor life, baking treatment is required.

   2.6 If baking is required, refer to IPC/JEDEC J-STD-033 for bake procedure or recommend the following conditions:
   96 hours at 60°C ± 5°C and < 5 % RH (reeled/tubed/loose units)

3. Soldering Condition

   3.1 Pb-free solder temperature profile




   3.2 Reflow soldering should not be done more than two times.

   3.3 When soldering, do not put stress on the LEDs during heating.

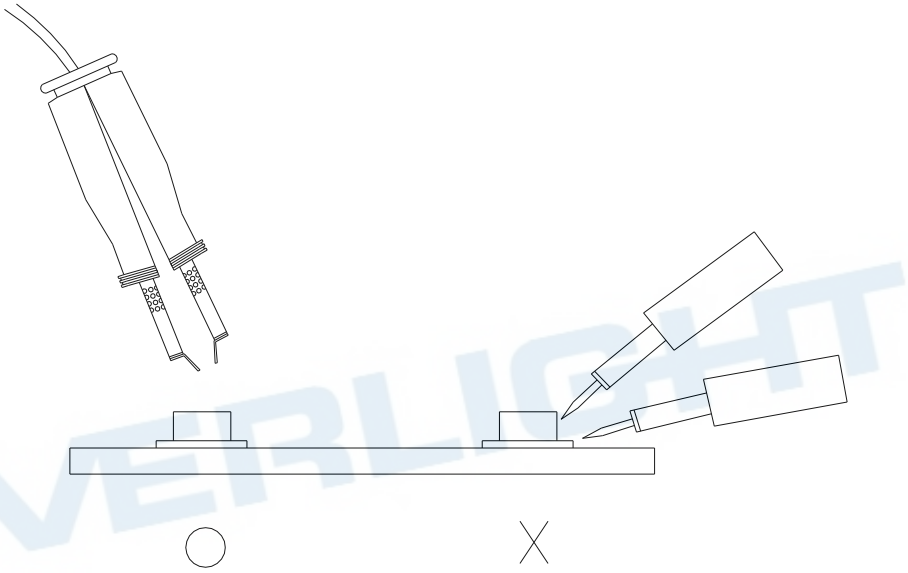
   3.4 After soldering, do not warp the circuit board.

4.Soldering Iron

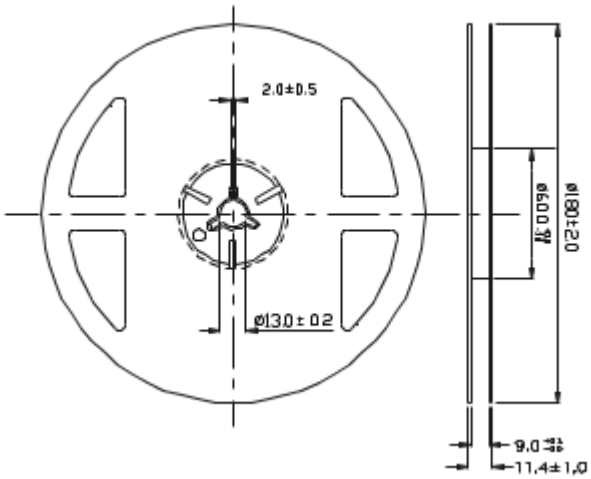
Each terminal is to go to the tip of soldering iron temperature less than 350℃ for 3 seconds within once in less than the soldering iron capacity 25W. Leave two seconds and more intervals, and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand solder.

5.Repairing

Repair should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used (as below figure). It should be confirmed beforehand whether the characteristics of the LEDs will or will not be damaged by repairing.

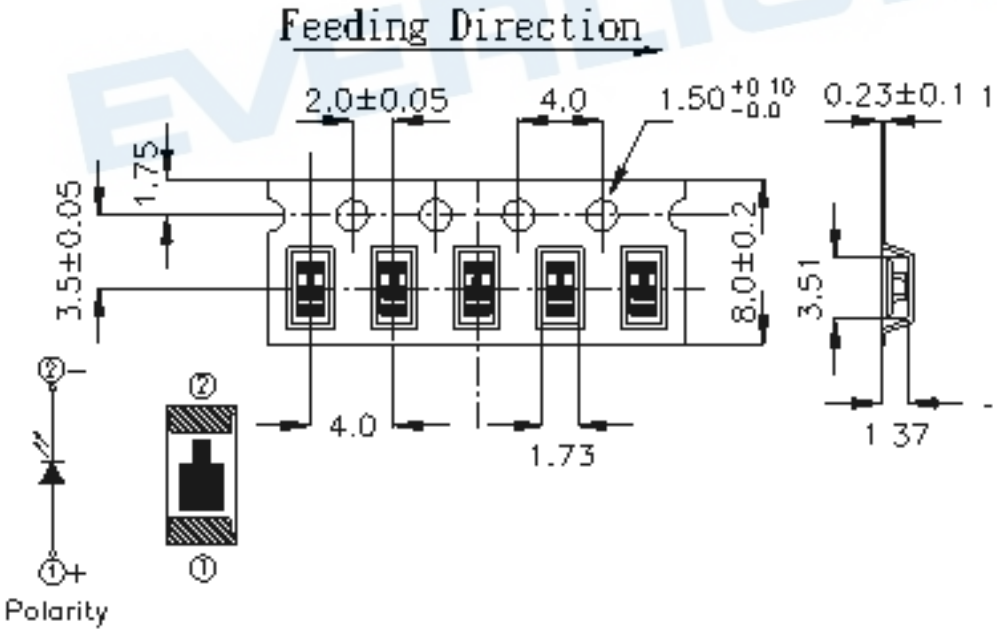


## Package Dimensions



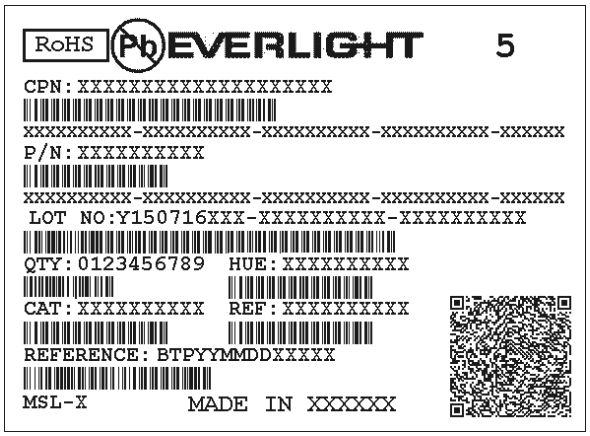

**Note:** The tolerances unless mentioned are ±0.1mm, Unit: mm

## Carrier Taping Dimensions: (Quantity: 2000PCS/Reel)




**Note:** The tolerances unless mentioned are ±0.1mm, Unit: mm

## Label Form Specification




CPN: Customer's Production Number
P/N : Production Number
LOT No: Lot Number
QTY: Packing Quantity
HUE: Peak Wavelength
CAT: Ranks
REF: Reference
MSL-X: MSL Level
Made In: Manufacture place

## DISCLAIMER

1. EVERLIGHT reserves the right(s) on the adjustment of product material mix for the specification.
2. The product meets EVERLIGHT published specification for a period of twelve (12) months from date of shipment.
3. The graphs shown in this datasheet are representing typical data only and do not show guaranteed values.
4. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from the use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
5. These specification sheets include materials protected under copyright of EVERLIGHT. Reproduction in any form is prohibited without obtaining EVERLIGHT's prior consent.
6. This product is not intended to be used for military, aircraft, automotive, medical, life sustaining or life saving applications or any other application which can result in human injury or death. Please contact authorized Everlight sales agent for special application request.

***EVERLIGHT ELECTRONICS CO., LTD.***
*Office: No. 6-8, Zhonghua Rd., Shulin Dist.,*
*New Taipei City 23860, Taiwan*
*Tel: 886-2-2685-6688*
*Fax: 886-2685-2699，6897*
*http://www.everlight.com*