

## Technical Data Sheet

### 3mm Infrared LED , T-1 IR264C



#### Features

- High reliability
- High radiant intensity
- Peak wavelength  $\lambda_p=940\text{nm}$
- 2.54mm Lead spacing
- Low forward voltage
- Pb.Free
- This product itself will remain within RoHS compliant version.
- Compliance with EU REACH
- Compliance Halogen Free(Br < 900ppm, Cl < 900ppm, Br+Cl < 1500ppm)

#### Descriptions

- EVERLIGHT's Infrared Emitting Diode (IR264C) is a high intensity diode , molded in a water clear plastic package.
- The device is spectrally matched with phototransistor , photodiode and infrared receiver module.

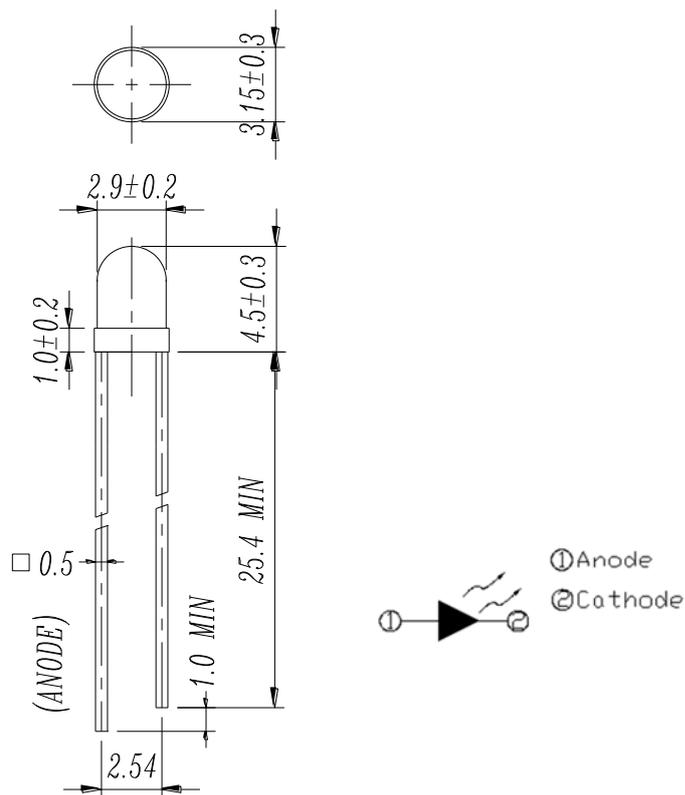
### Applications

- Free air transmission system
- Infrared remote control units with high power requirement
- Smoke detector
- Infrared applied system

### Device Selection Guide

| LED Part No. | Chip     | Lens Color  |
|--------------|----------|-------------|
|              | Material |             |
| IR264C       | GaAlAs   | Water Clear |

### Package Dimensions



- Notes:**
1. All dimensions are in millimeters
  2. Tolerances unless dimensions  $\pm 0.25$  mm

### Absolute Maximum Ratings (Ta=25°C)

| Parameter   | Symbol           | Rating     | Units |
|---|------------------|------------|-------|
| Continuous Forward Current                                  | I <sub>F</sub>   | 100        | mA    |
| Peak Forward Current  | I <sub>FP</sub>  | 1.0        | A     |
| Reverse Voltage   | V <sub>R</sub>   | 5          | V     |
| Operating Temperature                                       | T <sub>opr</sub> | -40 ~ +85  | °C    |
| Storage Temperature   | T <sub>stg</sub> | -40 ~ +100 | °C    |
| Soldering Temperature                                       | T <sub>sol</sub> | 260        | °C    |
| Power Dissipation at(or below)<br>25°C Free Air Temperature | P <sub>d</sub>   | 150        | mW    |

**Notes:** \*1:I<sub>FP</sub> Conditions--Pulse Width ≤ 100 μs and Duty ≤ 1%.

\*2:Soldering time ≤ 5 seconds.

### Electro-Optical Characteristics (Ta=25°C)

| Parameter          | Symbol            | Condition  | Min. | Typ. | Max. | Units |
|--------------------|-------------------|--|------|------|------|-------|
| Radiant Intensity  | E <sub>e</sub>    | I <sub>F</sub> =20mA                                     | 4.0  | 5.6  | --   | mW/sr |
|                    |                   | I <sub>F</sub> =100mA<br>Pulse Width ≤ 100 μs ,Duty ≤ 1% | --   | 30   | --   |       |
|                    |                   | I <sub>F</sub> =1A<br>Pulse Width ≤ 100 μs ,Duty ≤ 1%.   | --   | 300  | --   |       |
| Peak Wavelength    | λ <sub>p</sub>    | I <sub>F</sub> =20mA                                     | --   | 940  | --   | nm    |
| Spectral Bandwidth | Δλ                | I <sub>F</sub> =20mA                                     | --   | 45   | --   | nm    |
| Forward Voltage    | V <sub>F</sub>    | I <sub>F</sub> =20mA                                     | --   | 1.2  | 1.5  | V     |
|                    |                   | I <sub>F</sub> =100mA<br>Pulse Width ≤ 100 μs ,Duty ≤ 1% | --   | 1.4  | 1.8  |       |
|                    |                   | I <sub>F</sub> =1A<br>Pulse Width ≤ 100 μs ,Duty ≤ 1%.   | --   | 2.6  | 4.0  |       |
| Reverse Current    | I <sub>R</sub>    | V <sub>R</sub> =5V                                       | --   | --   | 10   | μA    |
| View Angle         | 2θ <sub>1/2</sub> | I <sub>F</sub> =20mA                                     | --   | 40   | --   | deg   |

Note:

\*Measurement Uncertainty of Forward Voltage: ±0.1V

\*Measurement Uncertainty of Luminous Intensity: ±10%

\*Measurement Uncertainty of Dominant Wavelength ±1.0nm

### Typical Electro-Optical Characteristics Curves

Fig.1 Forward Current vs. Ambient Temperature

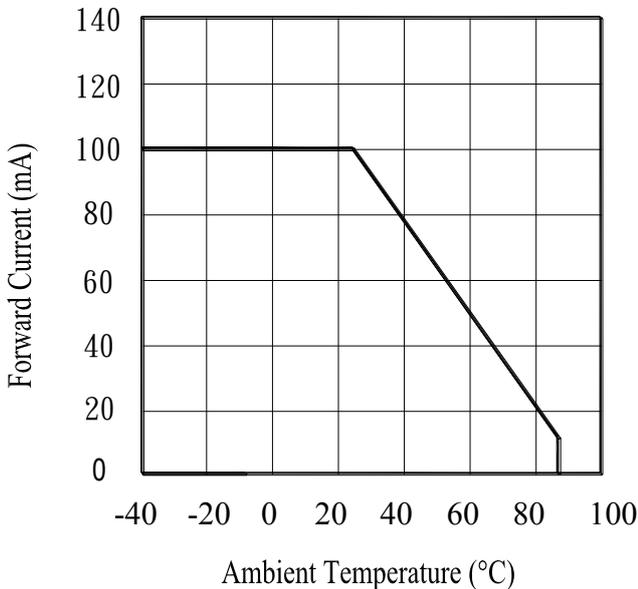


Fig.2 Spectral Distribution

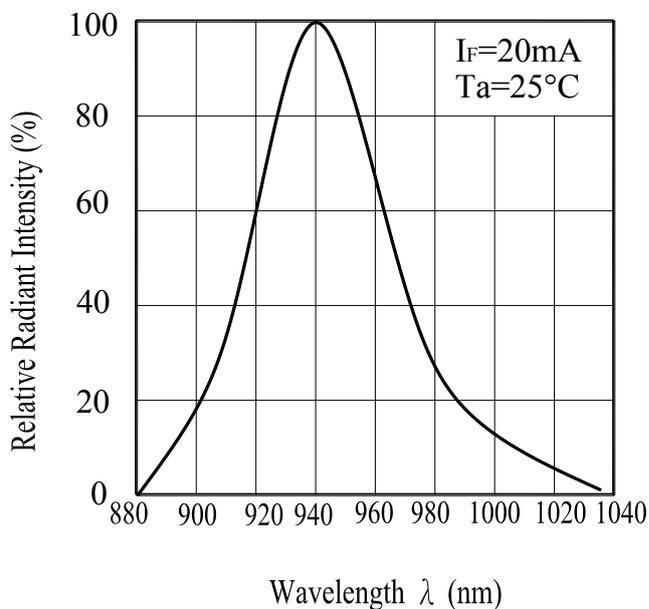


Fig.3 Peak Emission Wavelength vs. Ambient Temperature

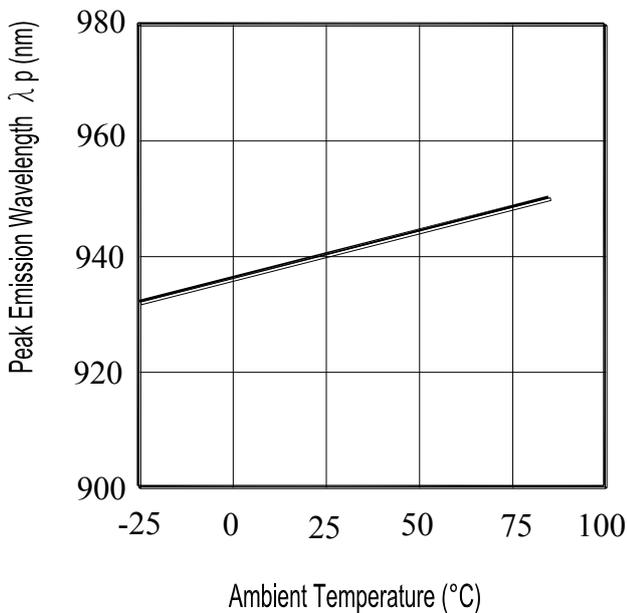
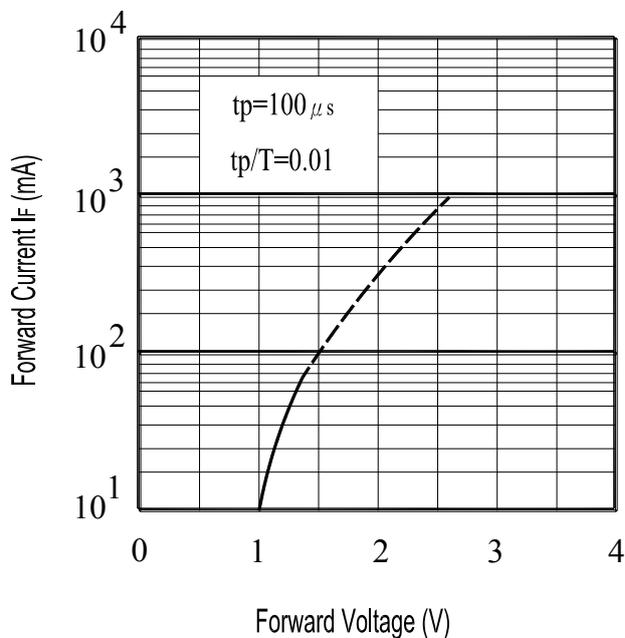


Fig.4 Forward Current vs. Forward Voltage



### Typical Electro-Optical Characteristics Curves

Fig.5 Radiant Intensity vs. Forward Current

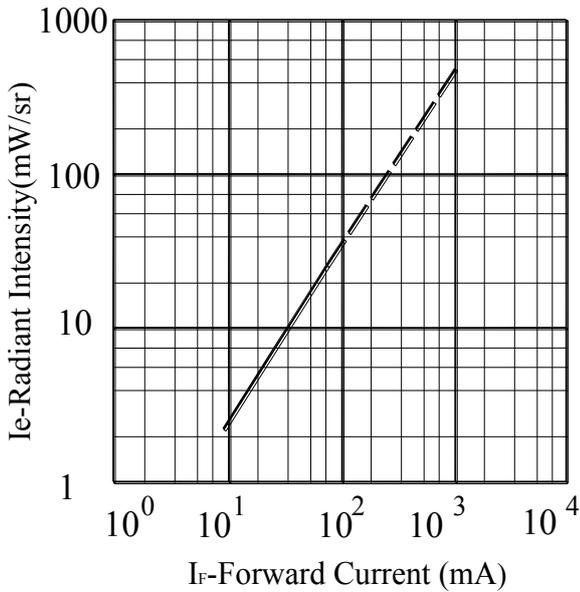


Fig.6 Relative Radiant Intensity vs. Angular Displacement

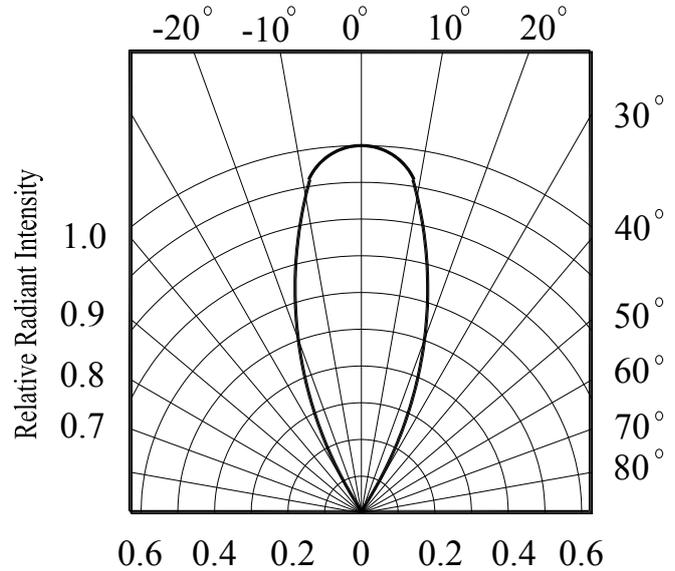


Fig.7 Radiant Intensity vs. Ambient Temperature

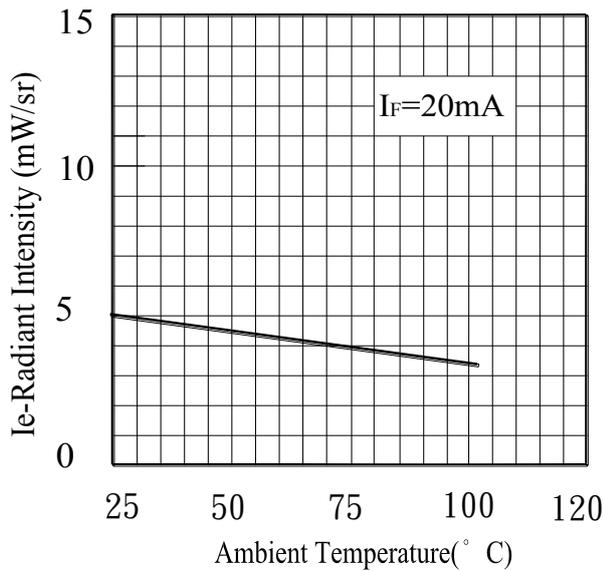
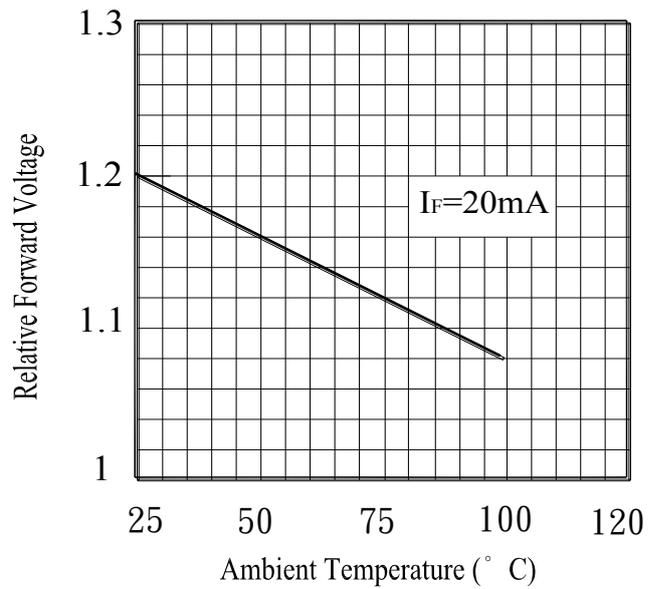


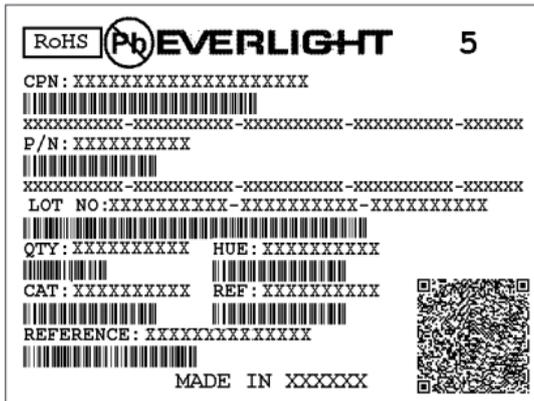
Fig.8 Relative Forward Voltage vs. Ambient Temperature



## Packing Quantity Specification

1. 200~1000PCS/1Bag,5Bag/1Box
2. 10Boxes/1Carton

## Label Form Specification



CPN: Customer's Production Number  
P/N : Production Number  
QTY: Packing Quantity  
CAT: Ranks  
HUE: Peak Wavelength  
REF: Reference  
LOT No: Lot Number

## 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.
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