

Side Face Infrared LED IR908-7C

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.

Description

- EVERLIGHT's Infrared Emitting Diode (IR908-7C) is a high intensity diode , molded in a water clear plastic package.
- The miniature side- facing device has a chip , that emits radiation from the side of the clear package.

Applications

- Mouse
- Optoelectronic switch
- Infrared applied system

Device Selection Guide

| | |
|----------------|-------------|
| Chip Materials | Lens Color |
| GaAlAs | Water Clear |

Absolute Maximum Ratings (Ta=25 °C)

| Parameter | Symbol | Rating | Unit |
|---------------------------------------------------------------|-----------|------------|------|
| Continuous Forward Current | I_F | 50 | mA |
| Peak Forward Current(*1) | I_{FP} | 1.0 | A |
| Reverse Voltage | V_R | 5 | V |
| Operating Temperature | T_{opr} | -40 ~ +85 | |
| Storage Temperature | T_{stg} | -40 ~ +100 | |
| Soldering Temperature | T_{sol} | 260 | |
| Power Dissipation at (or below) 25 °C Free Air Temperature | P_d | 75 | mW |

Notes: *1: I_{FP} Conditions--Pulse Width 100 μ s and Duty 1%.

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Electro-Optical Characteristics (Ta=25)

| Parameter | Symbol | Condition | Min. | Typ. | Max. | Units |
|--------------------|----------------|--------------------------------------------|------|------|------|-------|
| Light Current | Ic(on) | I _F =4mA, V _{CE} =3.5V | 143 | -- | 1274 | μA |
| Peak Wavelength | λp | I _F =20mA | -- | 940 | -- | nm |
| Spectral Bandwidth | Δλ | I _F =20mA | -- | 45 | -- | nm |
| Forward Voltage | V _F | I _F =20mA | -- | 1.2 | 1.5 | V |
| Reverse Current | I _R | V _R =5V | -- | -- | 10 | μA |
| View Angle | 2θ1/2 | I _F =20mA | -- | 60 | -- | De g |

Rank

| Ranks | Symbol | Min | Typ | Max | Unit | Test Condition |
|-------|--------|-----|-----|-----|------|--------------------------------------------|
| E1 | Ic(on) | 143 | --- | 255 | μA | I _F =4mA, V _{CE} =3.5V |
| E2 | Ic(on) | 214 | --- | 343 | μA | I _F =4mA, V _{CE} =3.5V |
| E3 | Ic(on) | 286 | --- | 431 | μA | I _F =4mA, V _{CE} =3.5V |
| E4 | Ic(on) | 357 | --- | 519 | μA | I _F =4mA, V _{CE} =3.5V |
| E5 | Ic(on) | 428 | --- | 608 | μA | I _F =4mA, V _{CE} =3.5V |
| E6 | Ic(on) | 500 | --- | 696 | μA | I _F =4mA, V _{CE} =3.5V |
| E7 | Ic(on) | 571 | --- | 784 | μA | I _F =4mA, V _{CE} =3.5V |

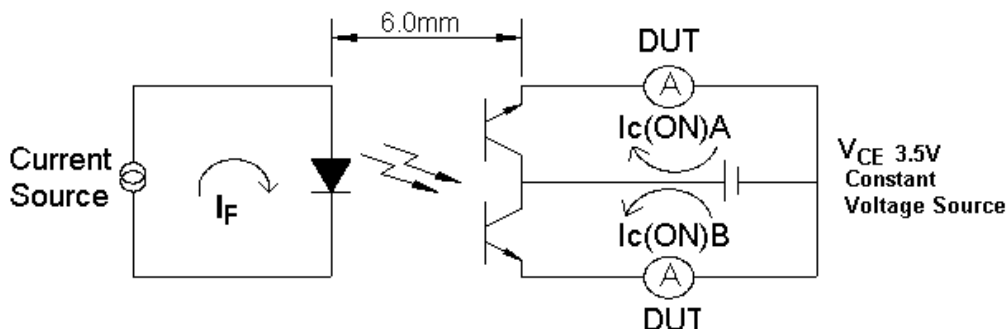
Rough ranks

| Parameter | Min | Max | Unit | Test Condition |
|-----------|-----|------|------|--------------------------------------------|
| 7-2 | 306 | 441 | μA | I _F =4mA, V _{CE} =3.5V |
| 7-1 | 347 | 550 | μA | I _F =4mA, V _{CE} =3.5V |
| 6-2 | 465 | 750 | μA | I _F =4mA, V _{CE} =3.5V |
| 6-1 | 650 | 1274 | μA | I _F =4mA, V _{CE} =3.5V |

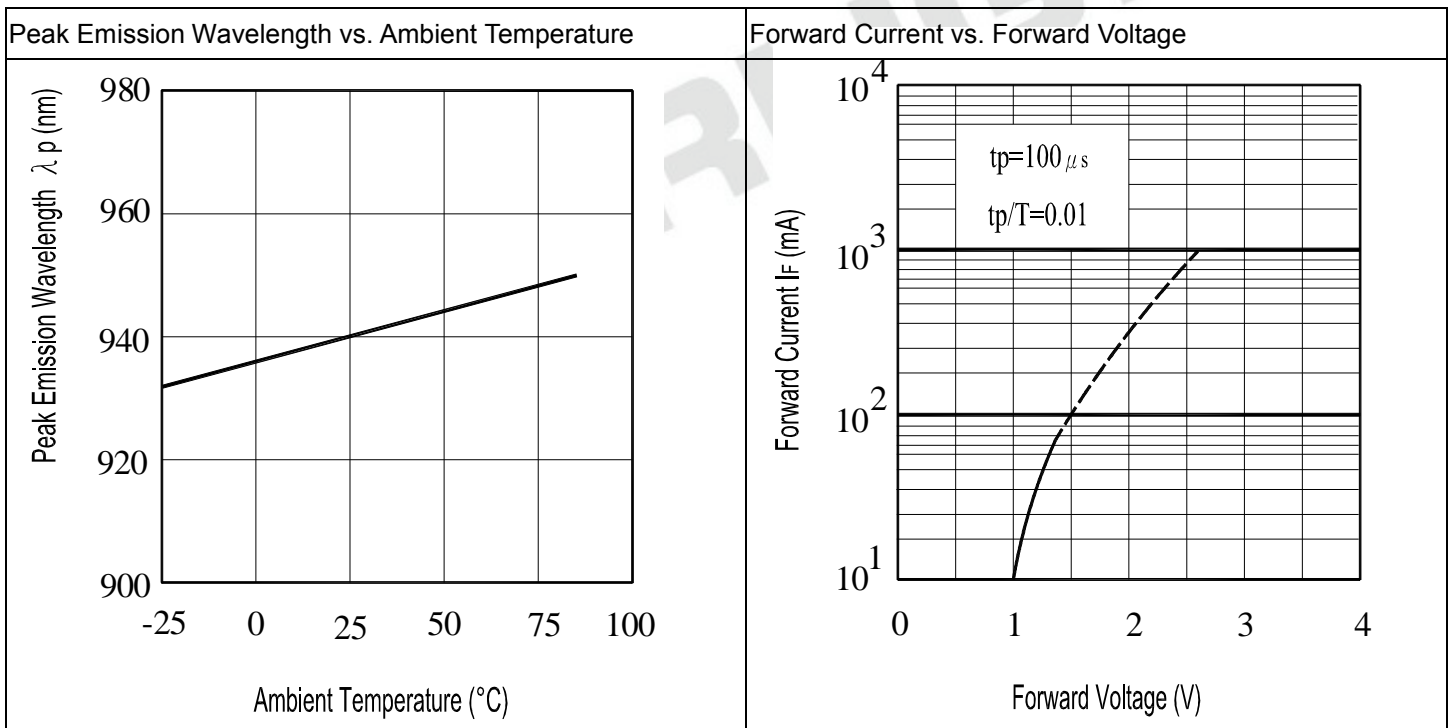
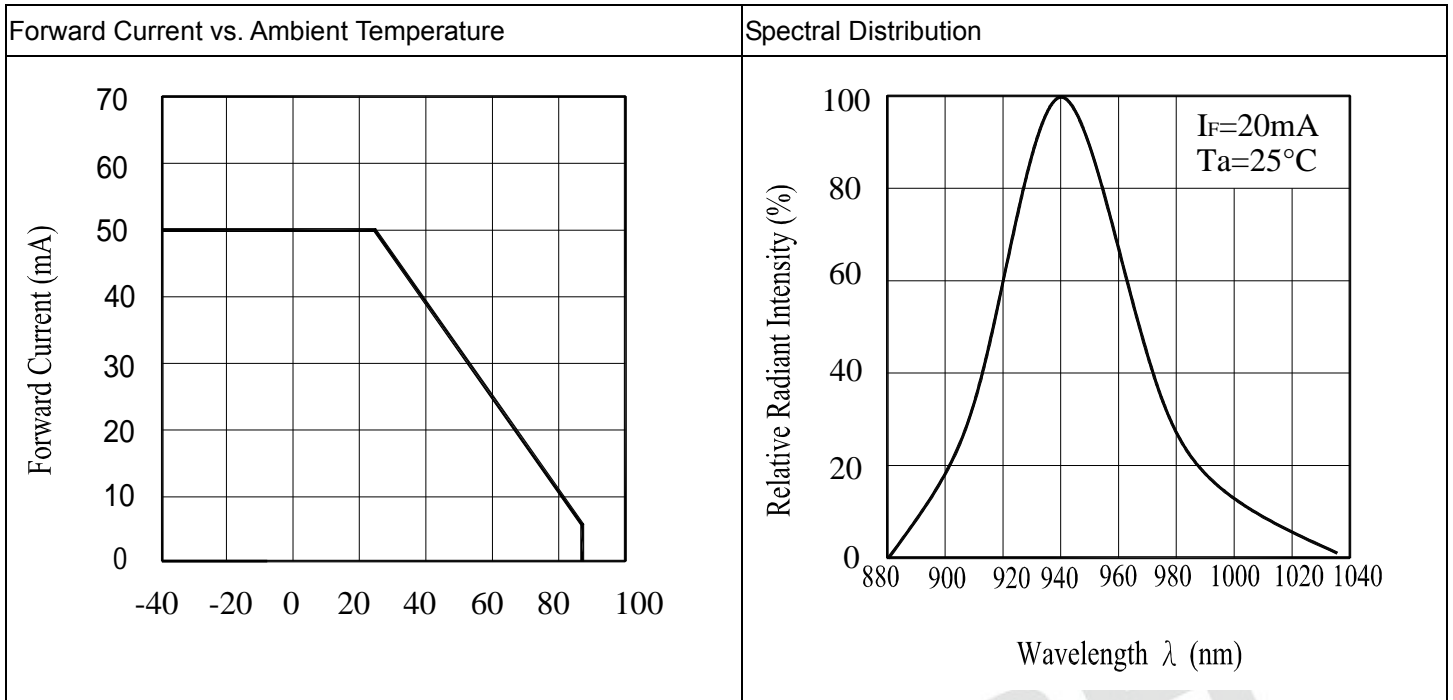
Test Method For Ic(ON):

Condition: I_F=4mA, V_{CE}=3.5V

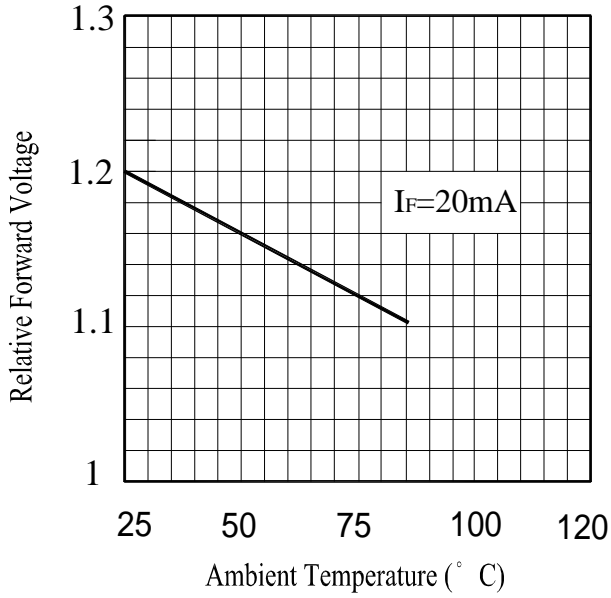
The intensity testing method for infrared emitting diode



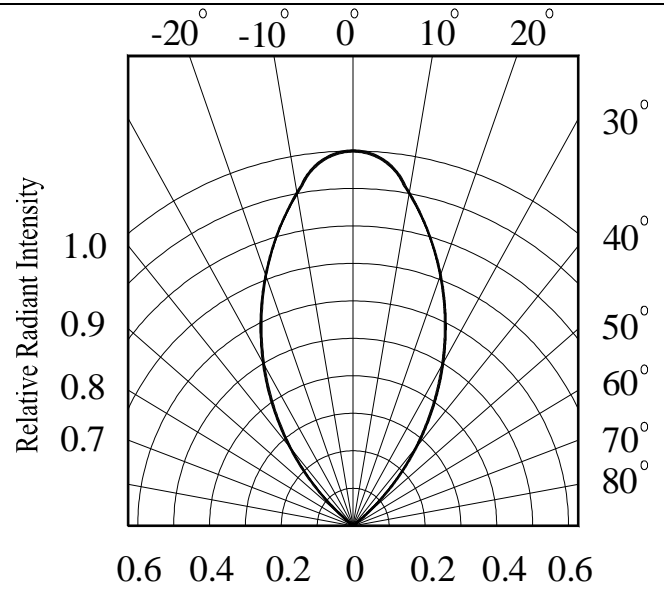
Typical Electro-Optical Characteristics Curves



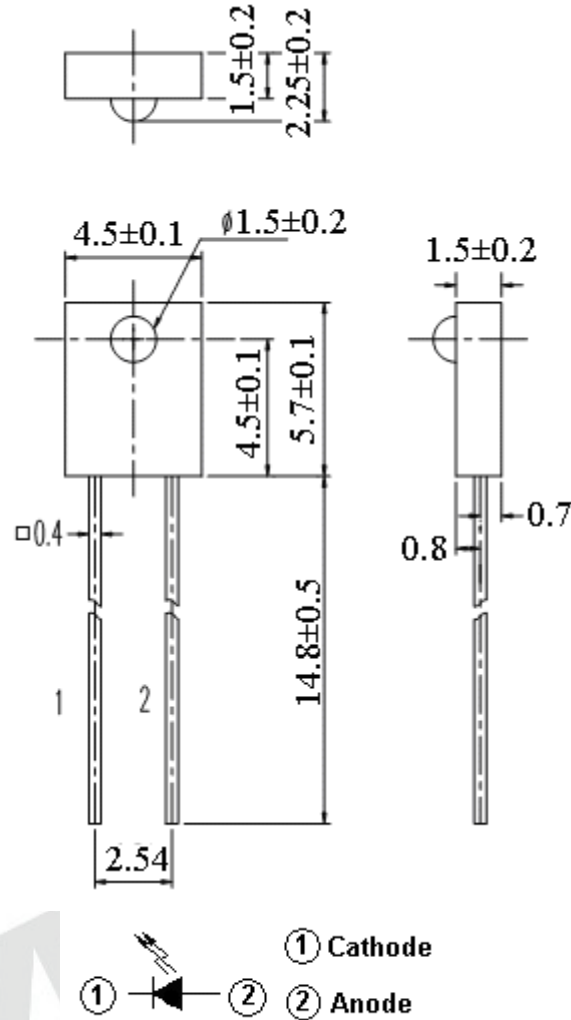
Forward Current vs. Ambient Temperature



Relative Radiant Intensity vs. Angular Displacement



Package Dimension



Note: Tolerances unless dimensions ± 0.25 mm

Packing Quantity Specification

1. 1000PCS/1Bag,8Bag/1Box
2. 10Boxes/1Carton

Label Form Specification



- CPN: Customer's Product Number
- P/N: Product Number
- QTY: Packing Quantity
- CAT: Luminous Intensity Rank
- HUE: Dom. Wavelength Rank
- REF: Forward Voltage Rank
- LOT No: Lot Number
- X: Month
- Reference: Identify Label Number

Notes

1. Above specification may be changed without notice. EVERLIGHT will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instruction for using outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from 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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