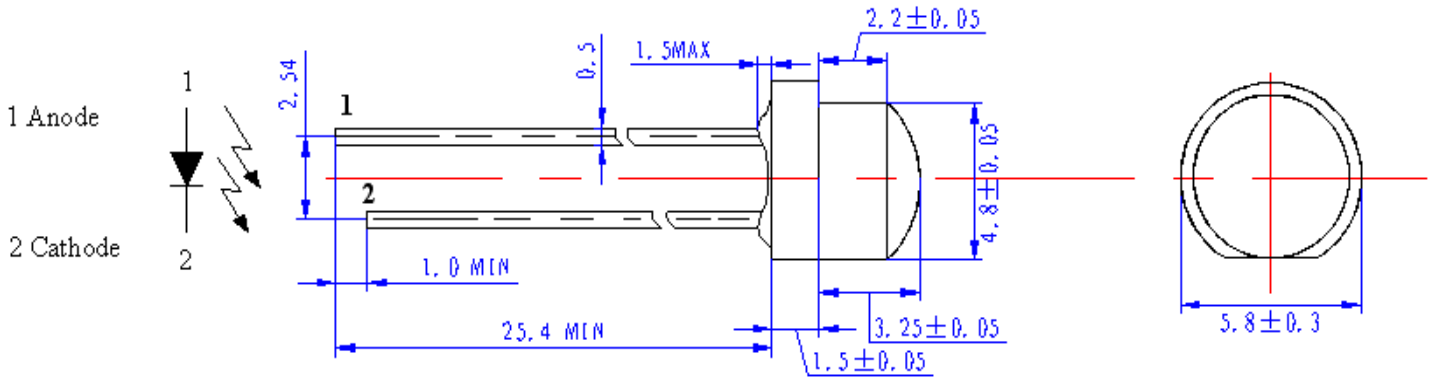
# 5.0mm Infrared LEDs

## MODEL NO : EC-HIR3273C

### Features

- High efficiency.
- Low power consumption.
- Peak wavelength λp=850nm.
- View angle 120° .
- Pb-free.
- The product itself will remain within RoHS complaint version.

### Package Dimensions




| Part No. | Chip | Lens Color |
|---|---|---|
| | Material | |
| EC-HIR3273C | AlGaAs | Water Clear |

### Note:

1. All dimensions are in millimeters.
2. Protruded resin under flange 1.5mm (0.059”) Max.

## Absolute maximum Ratings (Ta = 25℃)

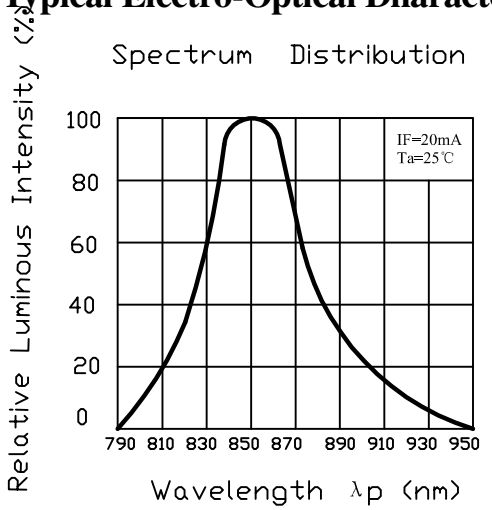
| Parameter | Symbol | Max | Unit |
|---|---|---|---|
| Forward current | $I_F$ | 100 | mA |
| Reverse voltage | $V_R$ | 5 | V |
| Power dissipation | Pd | 100 | mW |
| Peak forward current | $I_{FP}$ | 1.0 | A |
| Operating temperature | Topr | -25℃ ~ 85℃ | |
| Storage temperature | Tstg | -25℃ ~ 85℃ | |
| Soldering temperature | Tsol | 260℃ for 5 Seconds | |

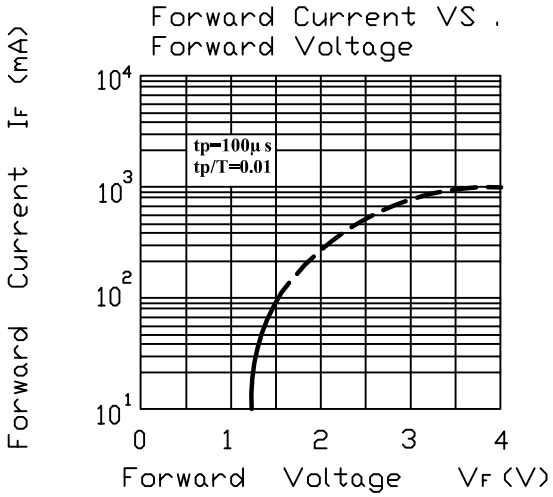
★Peak Forward Current  Pulse width=100us,Duty cycle=1%

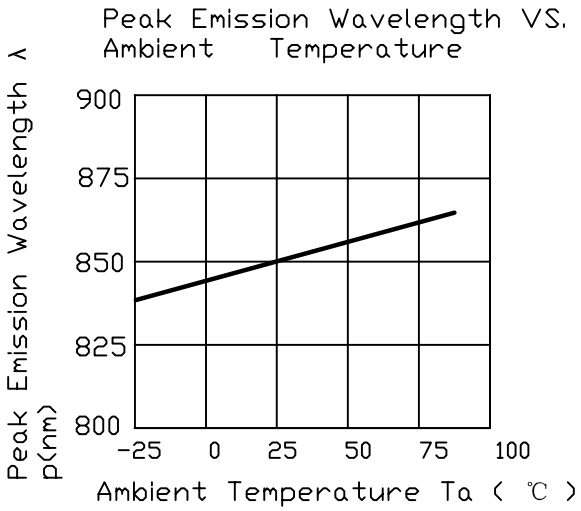
## Electro / Optical Characteristics (Ta = 25℃)

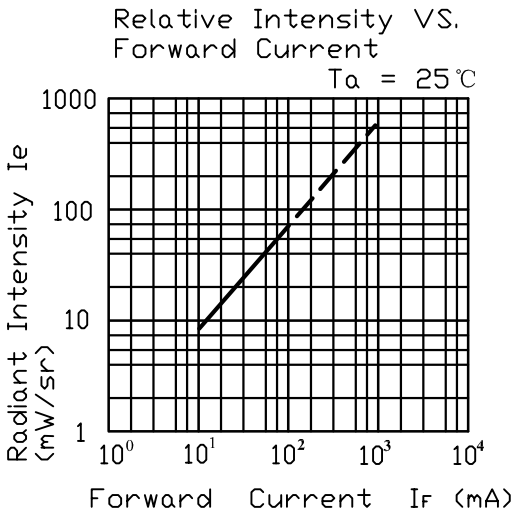
| Parameter | Symbol | Condition | Min | Tpy | Max | Unit |
|---|---|---|---|---|---|---|
| Radiant Intensity | Ee | $I_F$ = 20mA | ---- | 5.0 | ---- | mW/sr |
| Forward Voltage | $V_F$ | $I_F$ = 20mA | ---- | 1.4 | 1.65 | V |
| Reverse Current | $I_R$ | $V_R$ = 5V | ---- | ---- | 10 | μA |
| View Angle | 2θ 1/2 | $I_F$ = 20mA | ---- | 60 | ---- | deg |
| Spectral Bandwidth | Δλ | | ---- | 50 | ---- | nm |
| Peak Wavelength | λp | | ---- | 850 | ---- | nm |

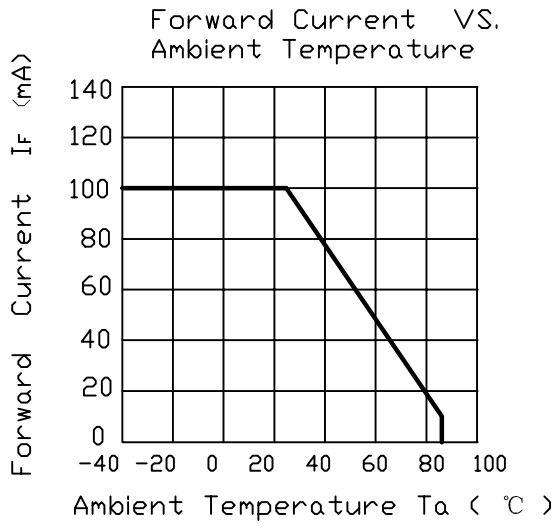
## Typical Electro-Optical Dharacteristics Curves

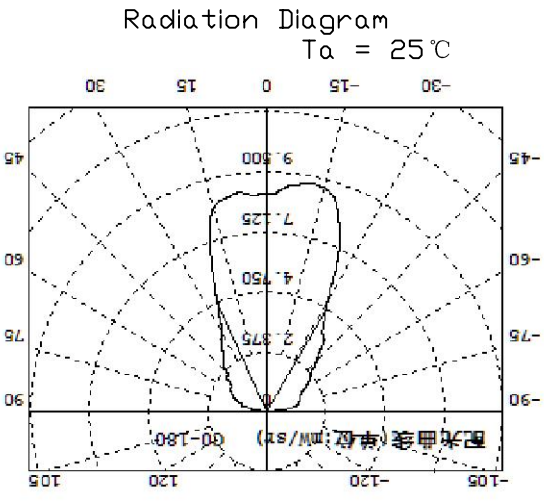


## Reliability Test Items And Conditions

The reliability of products shall be satisfied with items listed below.
Confidence level 90%
LTPD 10%

| NO. | Items | Test Condition | Test Hours/Cycles | Sample Size | Ac/Re |
|---|---|---|---|---|---|
| 1 | Soldering Heat | Temp:260℃±5℃ | 10±1 SEC | 76 PCS | 0/1 |
| 2 | Temperature Cycle | H:+85℃ 30 min<br>∫ 5 min<br>L:-55℃ 30 min | 50 Cycles | 76 PCS | 0/1 |
| 3 | Thermal Shock | H:+85℃ 30 min<br>∫ 5 min<br>L:-55℃ 30 min | 50 Cycles | 76 PCS | 0/1 |
| 4 | High Temperature Storage | Temp. : 100℃ | 1000 Hrs | 76 PCS | 0/1 |
| 5 | Low Temperature Storage | Temp. : -55℃ | 1000 Hrs | 76 PCS | 0/1 |
| 6 | DC Operating Life | IF = 20 mA | 1000 Hrs | 76 PCS | 0/1 |
| 7 | High Temperature / High Humidity | +85℃/ 85%RH | 1000 Hrs | 76 PCS | 0/1 |