

HL-304IR4C-L5



Features

- Mechanically and spectrally matchend to the phototransistor.
- Rohs compliant.

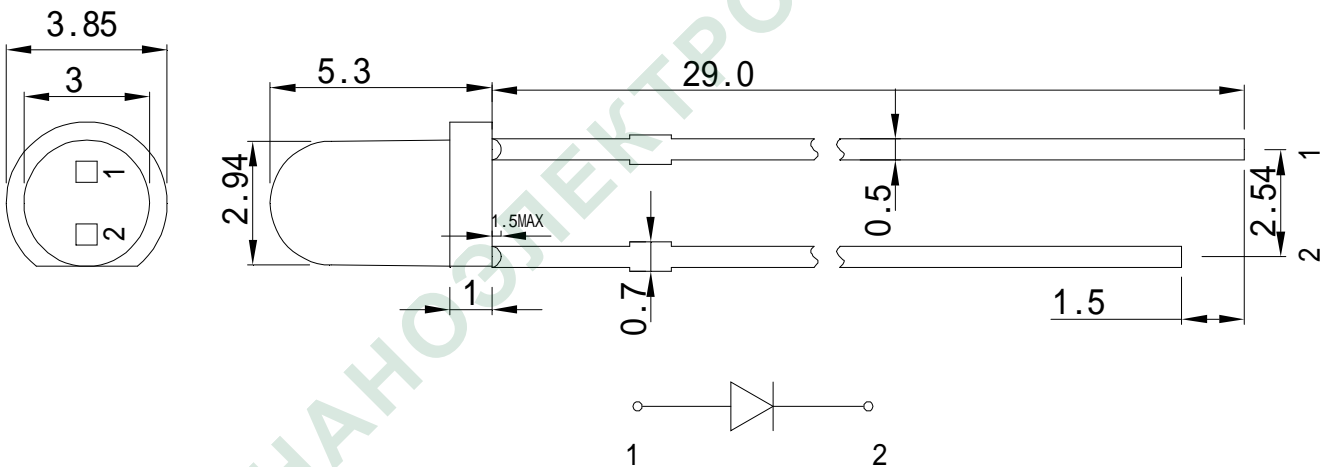
HL-304IR4C-L5



Package Dimensions

Description

This devices are made with PIN GaAs.



| Tolerance Grade | Dimension Tolerance (UNIT:mm) | | | |
|-----------------|-------------------------------|-------------|------|------|
| | | 0.5~3 | 3~6 | 6~30 |
| | ±0.1 | ±0.2 | ±0.3 | ±0.5 |
| Chip | | Lens Color | | |
| Material | Emitting Color | Water Clear | | |
| GaAs | / | | | |

Selection Guide

| Part No | Radiant Intensity(mW/sr) $I_F=50mA$ | | Viewing Angle |
|---------------|--|-----|----------------|
| | Min | Typ | 2 θ 1/2 |
| HL-304IR4C-L5 | -- | 75 | 30 |

Note:

1. 2 θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. Tolerance of measurement of luminous intensity $\pm 15\%$.

Electrical / Optical Characteristics at TA=25°C

| Item | Symbol | Min | Typ | Units | Test Conditions |
|--------------------------|------------------------|-----|-----|---------|-----------------|
| Forward Voltage | V_F | | 1.5 | V | $I_F=50mA$ |
| Reverse Current | I_R | -- | 10 | μA | |
| Peak Spectral Wavelength | λ_D | -- | 850 | nm | |
| Spectral Bandwidth | $\Delta \lambda_{1/2}$ | -- | 50 | nm | |
| | | | | | |

Note:

1. Tolerance of measurement of forward voltage $\pm 0.1V$.
2. Tolerance of measurement of peak Wavelength $\pm 2.0nm$.

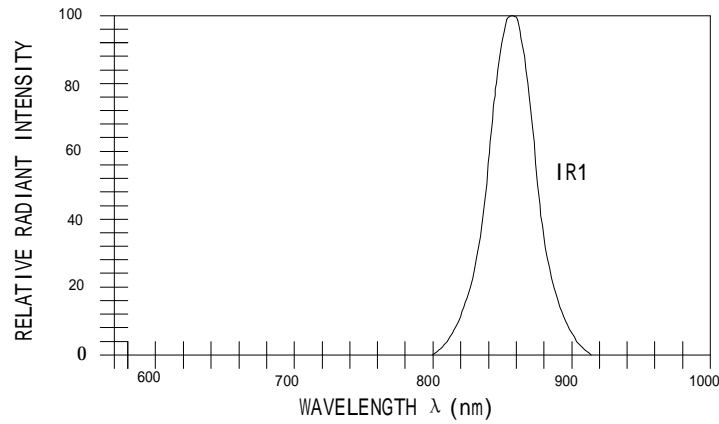
Absolute Maximum ratings at Ta=25°C

| Parameter | Symbol | IR1 | Units |
|-------------------------|----------|-------------|-------|
| Power Dissipation | Pt | 100 | mW |
| DC Forward Current | I_F | 50 | mA |
| Peak Forward Current[1] | I_{FS} | 300 | mA |
| Operating Temperature | | -30°C ~80°C | |
| Storage Temperature | | -30°C ~80°C | |

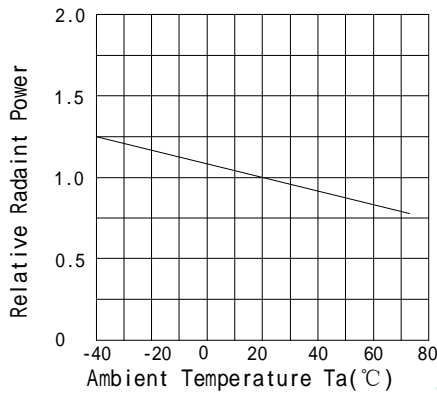
Note:

1. IFP Conditions: Pulse Width $\leq 10msec$
2. Tsol Conditions: 3mm from the base of the epoxy bulb

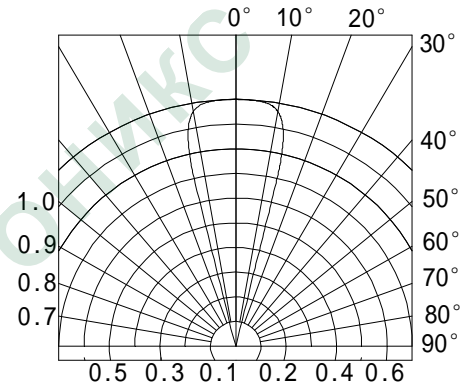
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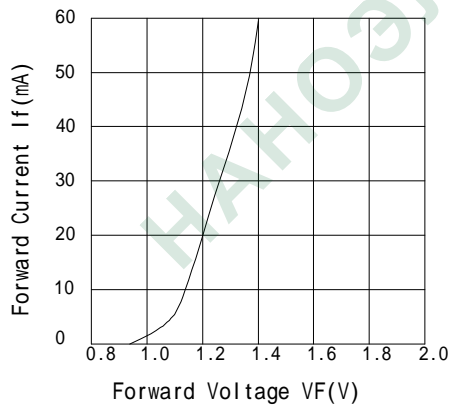
Forward Current vs.Forward Voltage



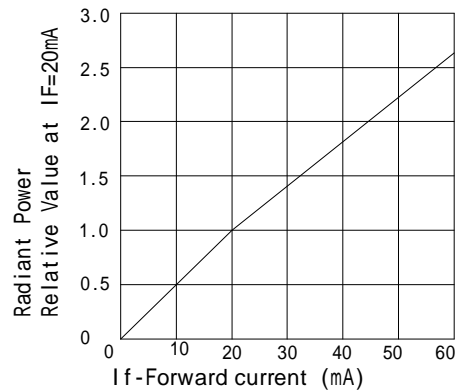
Radint Power Vs.Ambient Temperature



Spatial Distribution



Forward Current Vs.Forward Voltage



Radint Power Vs Forward Current

Remarks:

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

1. Radiant intensity/Luminous Flux:±15%.
2. Forward Voltage:±0.1V.

Note:Accuracy may depend on the sorting parameters.

Soldering:

1. Manual Of Soldering

The temperature of the iron tip should not be higher than 300°C and Soldering within 3 seconds per solder-land is to be observed.

2. DIP soldering (Wave Soldering):

Preheating: 120°C~150°C, within 120~180 sec.

Operation heating: 245°C ± 5°C within 5 sec. 260°C (Max)

Gradual Cooling (Avoid quenching).

