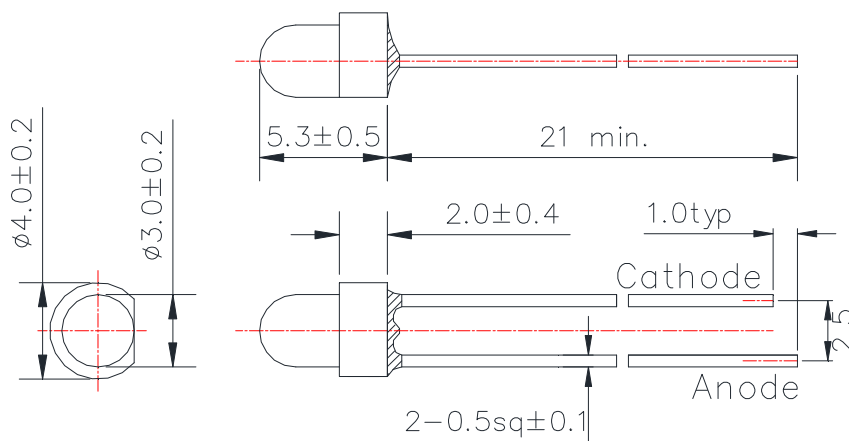


L1050GD-36

Infrared LED Lamp

Outline and Internal Circuit



(Unit : mm)

Features

- Chip Material : GaAs
- Chip Dimension : 350um * 350um
- Number of Chips : 1pce
- Peak Wavelength : 1050nm typ.
- Package Type : $\phi 3$ mm clear molding
- Lead Frame : Soldered (Lead Free)
- Lens : Epoxy Resin

Absolute Maximum Ratings (Tc=25°C)

| Item | Symbol | Ratings | Unit |
|-----------------------|--------|------------|------|
| Power Dissipation | PD | 160 | mW |
| Forward Current | IF | 100 | mA |
| Pulse Forward Current | IFP | 1000 | mA |
| Reverse Voltage | VR | 5 | V |
| Thermal Resistance | Rthjs | 200 | K/W |
| Junction Temperature | Tj | 120 | °C |
| Operating Temperature | Topr | -40 ~ +100 | °C |
| Storage Temperature | Tstg | -40 ~ +100 | °C |
| Soldering Temperature | TSOL | 265 | °C |

‡Pulse Forward Current condition : Duty 1% and Pulse Width=10us.

‡Soldering condition : Refer to technical support information on the website.

Optical and Electrical Characteristics (Tc=25°C)

(*: 100% testing, **: reference value)

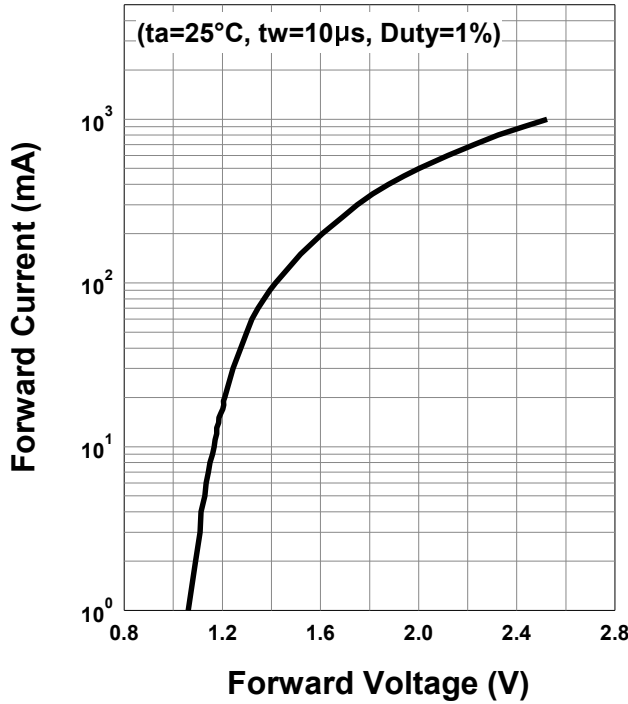
| Parameter | Symbol | Min | Typ | Max | Unit | Test Condition |
|----------------------|-----------------|------|----------|-------|-------|----------------|
| Forward Voltage | VF | | 1.3 | (1.6) | V | IF=50mA* |
| | VFP | | 2.5 | | | IFP=1A** |
| Reverse Current | IR | | | 10 | uA | VR=5V* |
| Total Radiated Power | PO | 21 | 30 | | mW | IF=50mA* |
| | | | 420 | | | IFP=1A** |
| Radiant Intensity | IE | | 20 | | mW/sr | IF=50mA** |
| | | | 280 | | | IFP=1A** |
| Peak Wavelength | λ_p | 1000 | | 1100 | nm | IF=50mA* |
| Half Width | $\Delta\lambda$ | | 50 | | nm | IF=50mA** |
| Viewing Half Angle | $\theta_{1/2}$ | | ± 58 | | deg. | IF=50mA** |
| Rise Time | tr | | 10 | | ns | IF=50mA** |
| Fall Time | tf | | 10 | | ns | IF=50mA** |

‡ Radiated Power is measured by G8370-85.

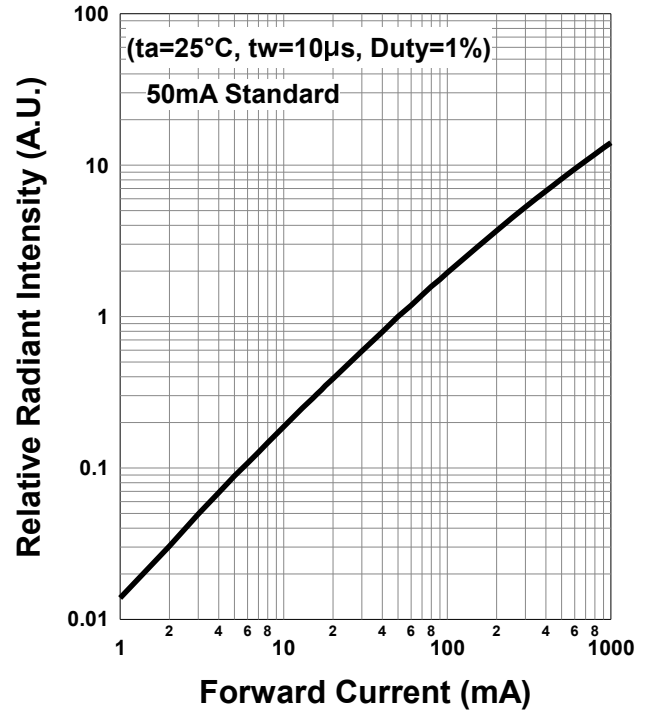
‡ Radiant Intensity is measured by Ando Optical Multi Meter AQ2140 & AQ2742.

Typical Characteristic Curves

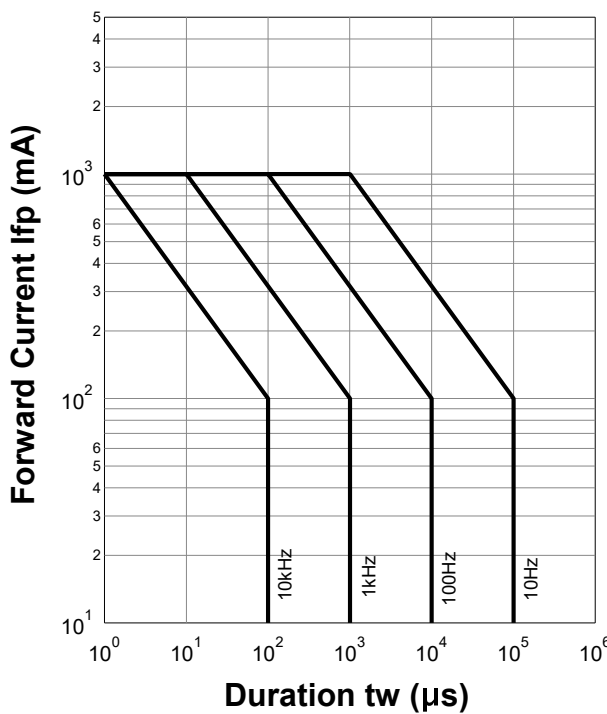
Forward Current - Forward Voltage



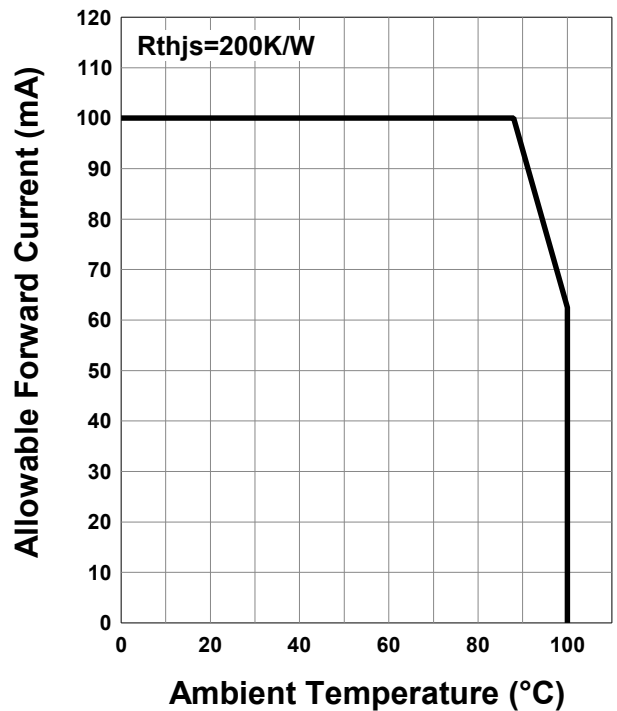
Relative Radiant Intensity - Forward Current

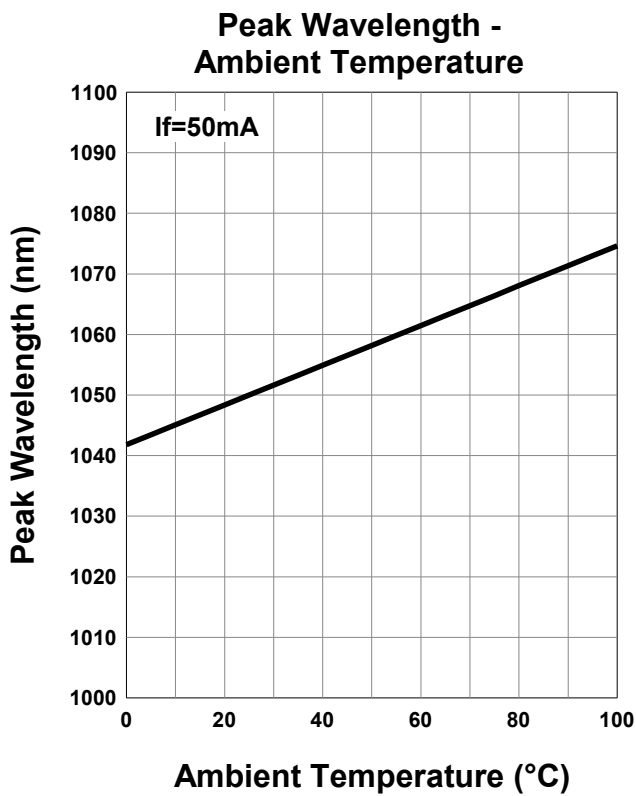
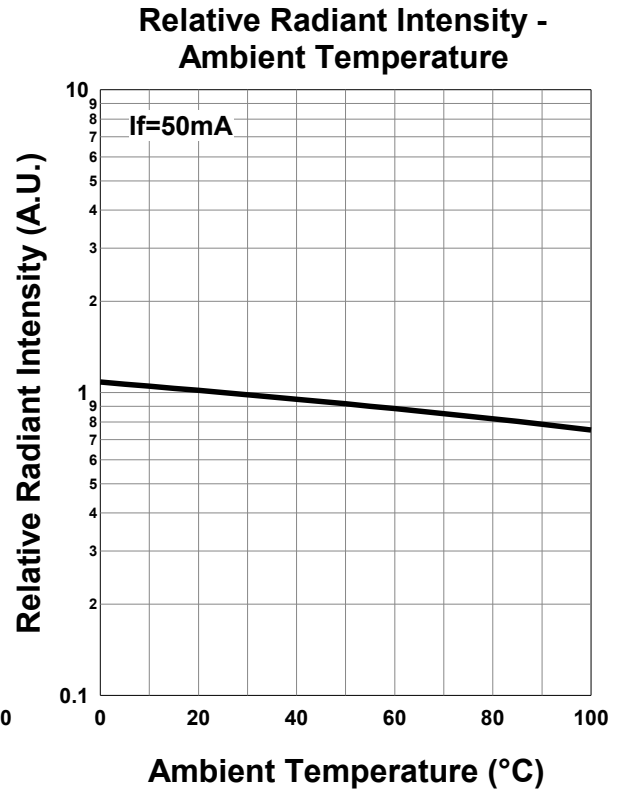
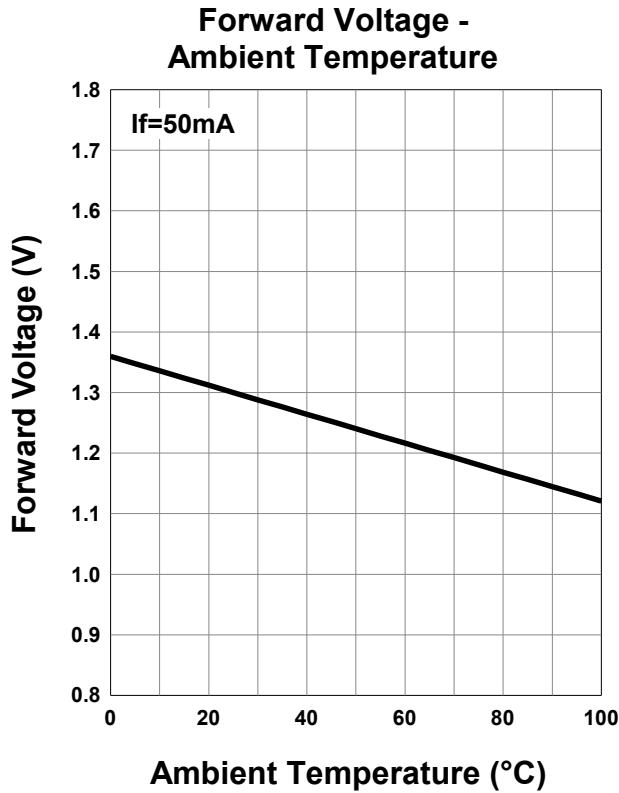


Forward Current - Pulse Duration

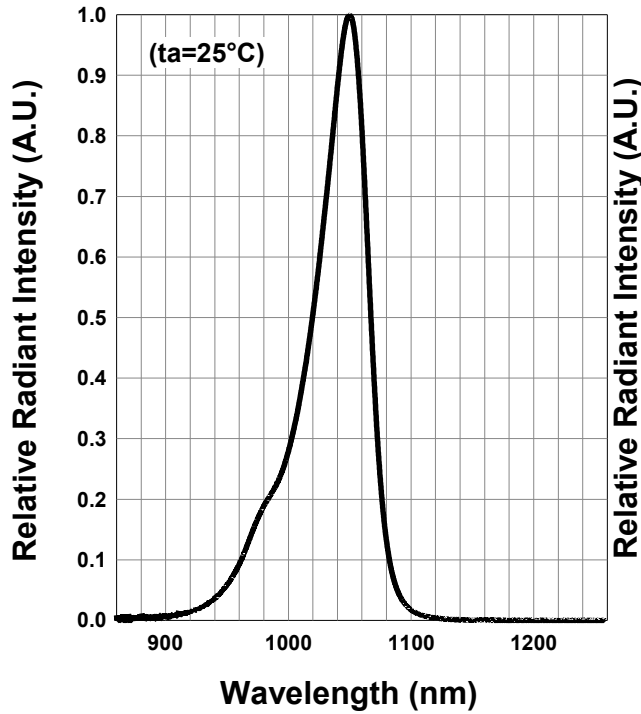


Allowable Forward Current - Ambient Temperature

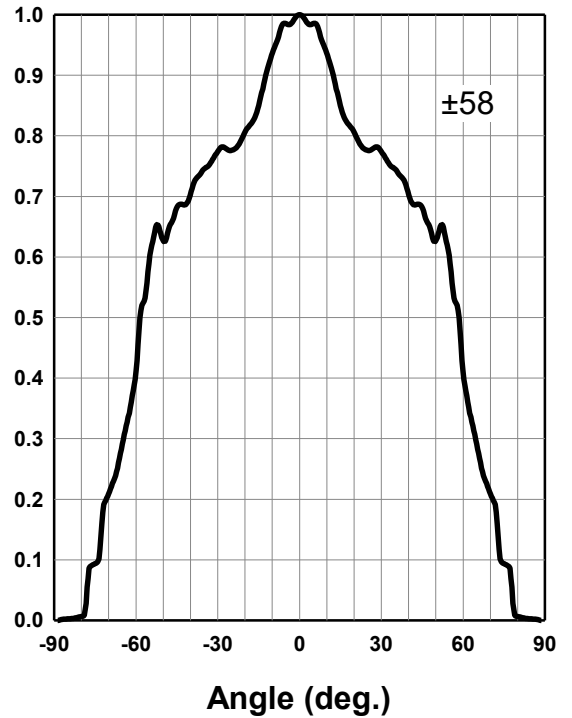




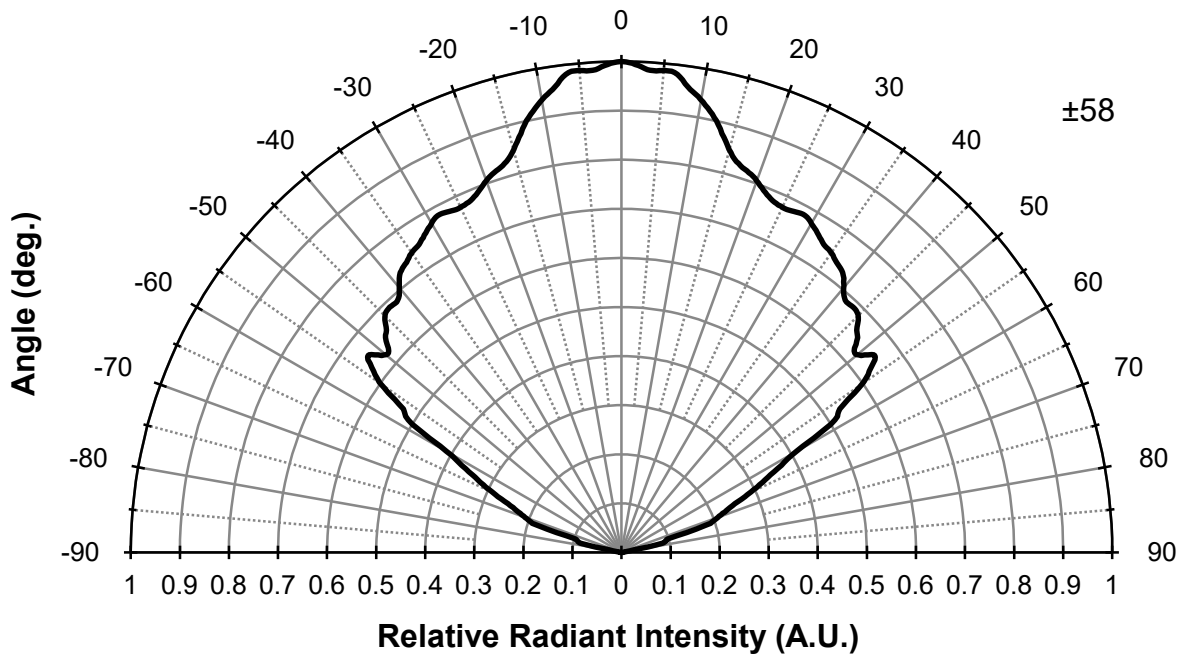
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



Disclaimer

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Product data and parameters in this catalog are typical values based on reasonably up-to-date measurements.

Product data and parameters may vary by user application and over time.

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