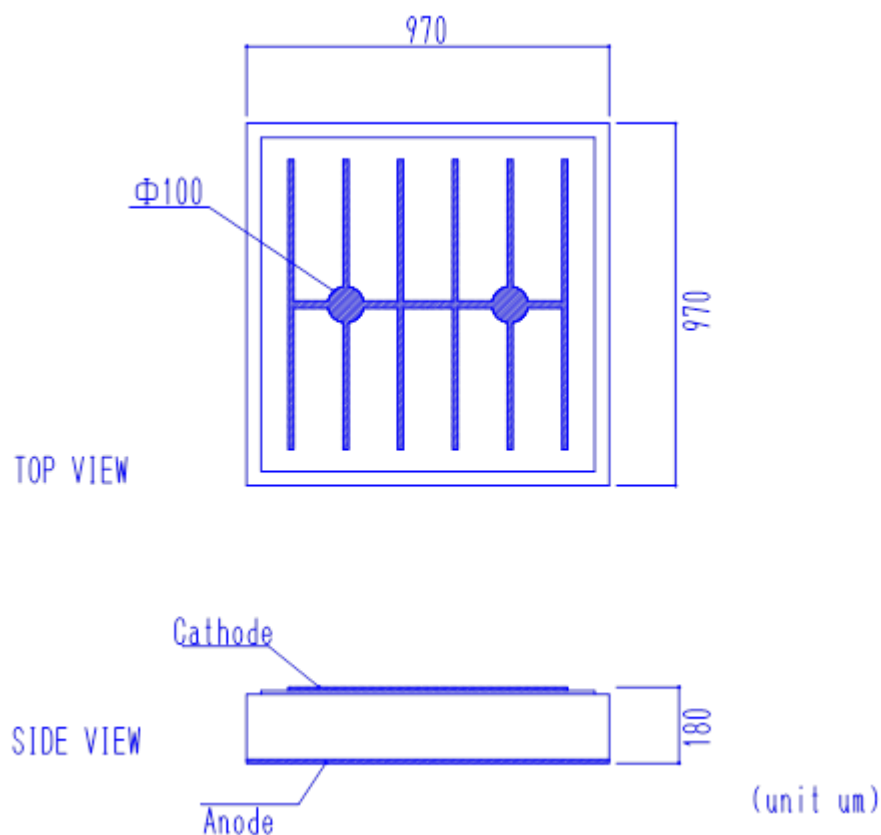


PRELIMINARY

C1750D-100P

InGaAsP IR LED Chip

Outline



Characteristics

- Materials: InGaAsP
- Dimension
 - Chip Size: 970 +/-30 μ m x 970 +/-30 μ m
 - Chip thickness: 180 +/-25 μ m
 - P bonding pad: ϕ 100 +/-10 μ m
- Bonding pad: Au

Absolute Maximum Ratings

| Item | Symbol | Condition | Ratings | Unit |
|-----------------------|--------|---------------------------------------|------------|------|
| Forward Current | IF | Ta=25 °C | 1000 | mA |
| Pulse Forward Current | IFP | Ta=25 °C Duty 1%, Pulse Width 10us | 2000 | mA |
| Reverse Voltage | VR | Ta=25 °C | 3 | V |
| Junction Temperature | Tj | - | 120 | °C |
| Operating Temperature | Topr | - | -40 ~ +100 | °C |
| Storage Temperature | Tstg | Chip | -40 ~ +100 | °C |
| | | Chip on Tape | +5 ~ +30 | °C |

‡ Maximum Ratings are dependent on package.

Optical and Electrical Characteristics (Tc=25°C)

| Parameter | Symbol | Condition | Min | Typ | Max | Unit |
|-------------------------------------|-----------------|-------------------------------------|------|----------|------|------|
| Forward Voltage | VF1 | IF=100mA ⁽³⁾ | | 0.8 | 1.1 | V |
| | VF2 | IF=500mA ⁽³⁾ | | 1.1 | | |
| | VFP | IFP=2A Duty 1%, Pulse Width 10us | | 2.1 | | |
| Total Radiated Power ⁽²⁾ | PO1 | IF=100mA ⁽³⁾ | 4.4 | 6.3 | | mW |
| | PO2 | IF=500mA ⁽³⁾ | | July2020 | | |
| | POp | IFP=2A Duty 1%, Pulse Width 10us | | July2020 | | |
| Peak Wavelength | λ_p | IF=50mA ⁽³⁾ | 1720 | 1750 | 1780 | nm |
| Spectral Half Width | $\Delta\lambda$ | IF=50mA ⁽³⁾ | | 150 | | nm |
| Rise Time | tr | IF=500mA | | 90 | | ns |
| Fall Time | tf | IF=500mA | | 30 | | ns |

(1) Die shall be mounted on TO-18 gold header without resin coated.

(2) Radiated Power is measured by G8370-85.

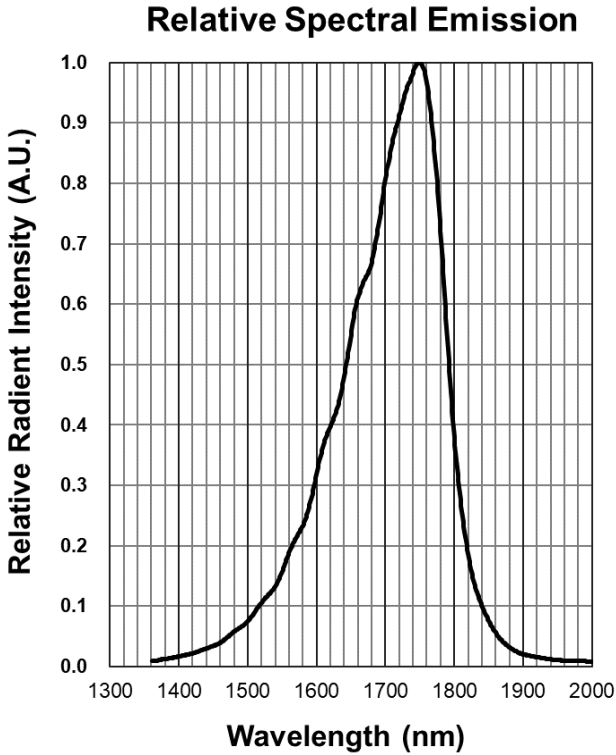
(3) Applied time is 10msec.

Typical Characteristic Curves

Forward Current - Forward
Voltage
July2020

Relative Radiant Intensity
Forward Current
July2020

Forward Current – Pulse
Duration
July2020



Forward Voltage- Ambient
Temperature
July2020

Intensity – Ambient Temperature
July2020

Peak Wavelength – Ambient
Temperature
July2020

Disclaimer

Product specifications and data shown in this product catalog are subject to change without notice for the purposes of improving product performance, reliability, design, or otherwise.

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.

Products shown in this catalog are intended to be used for general electronic equipment. Products are not guaranteed for applications where product malfunction or failure may cause personal injury or death, including but not limited to life-supporting / saving devices, medical devices, safety devices, airplanes, aerospace equipment, automobiles, traffic control systems, and nuclear reactor control systems.