

C940DS-100

PRELIMINARY

Infrared LED Chip

<Specifications>

- Materials: AlGaAs
- Size
 Chip Size: 1000μm x 1000μm typ.
 Chip thickness: 190μm typ.
 P bonding pad: φ120μm typ.
- Electrode
 N side (cathode): Au Alloy
 P side (anode): Au Alloy

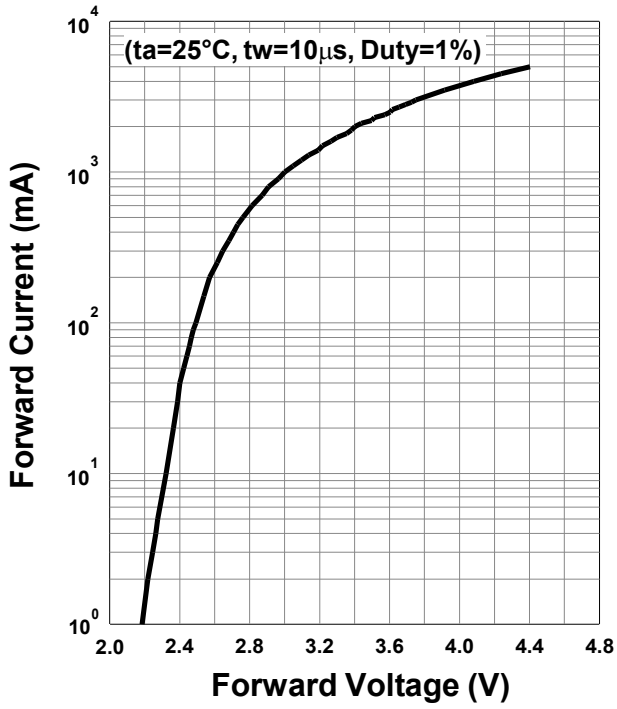
| Absolute Maximum Ratings[Tc=25°C] | | | |
|-----------------------------------|--------|------------|------|
| Item | Symbol | Ratings | Unit |
| Forward Current | IF | 1000 | mA |
| Pulse Forward Current* | IFP | (5000) | mA |
| Reverse Voltage | VR | 5 | V |
| Junction Temperature | Tj | 120 | °C |
| Operating Temperature | TOPR | -40 ~ +100 | °C |
| Storage Temperature | TSTG | -40 ~ +100 | °C |

* Duty 1% and Pulse Width=10us

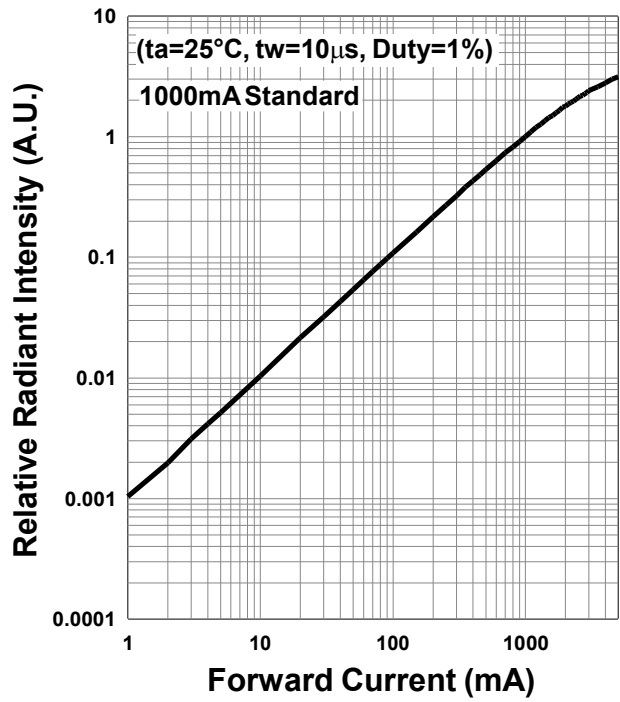
| Electro-Optical Characteristics [Tc=25°C typ.] | | | | | | |
|--|--------|--------------|---------|---------|---------|------|
| Item | Symbol | Condition | Minimum | Typical | Maximum | Unit |
| Forward Voltage | VF | IF=1A T=20ms | | 3.0 | 4.0 | V |
| | VFP | IFP=3A | | 3.7 | | |
| Total Radiated Power | PO | IF=1A T=20ms | 500 | | | mW |
| | POp | IFP=3A | | (1300) | | |
| Peak Wavelength | λP | IF=100mA | 910 | | 970 | nm |
| | | IF=1A T=20ms | | (940) | | |
| Half Width | Δλ | IF=1A T=20ms | | 47 | | nm |
| Rise Time | tr | IF=100mA | | 10 | | ns |
| Fall Time | tf | IF=100mA | | 15 | | |

Die shall be mounted on TO-46 gold header without resin coated. (Ta=25°C)

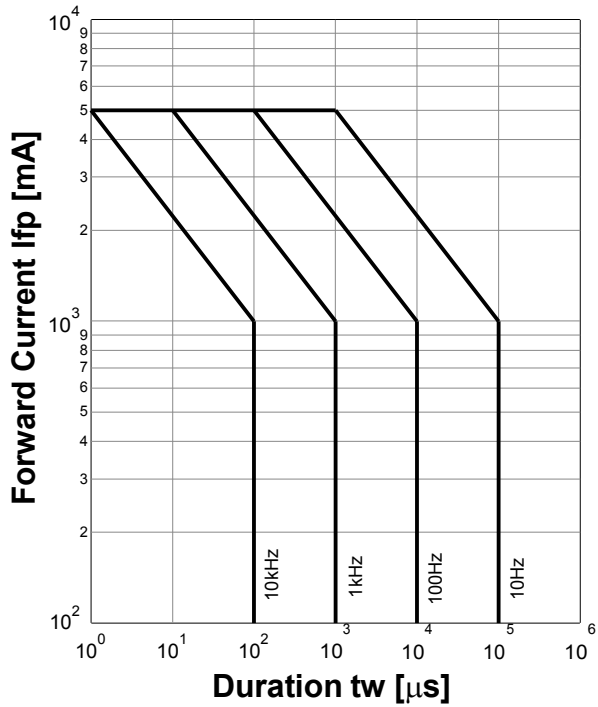
Forward Current - Forward Voltage



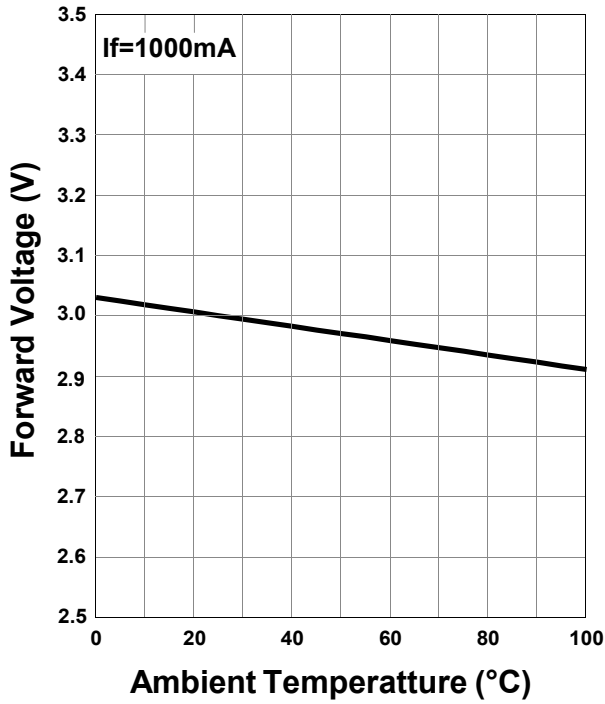
Relative Radiant Intensity - Forward Current



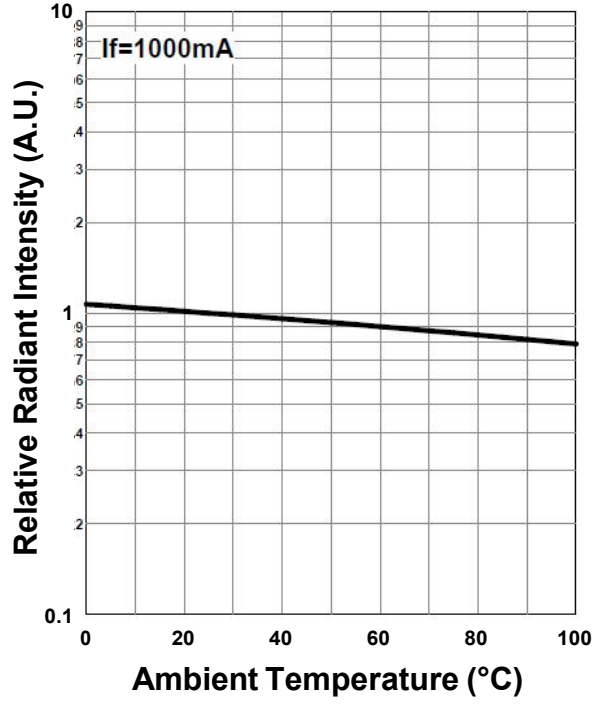
Forward Current - Pulse Duration



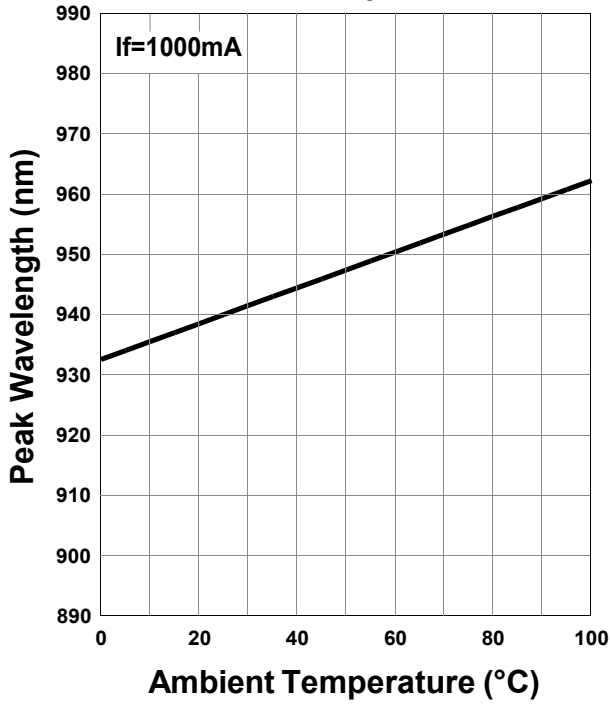
Forward Voltage - Ambient Temperature



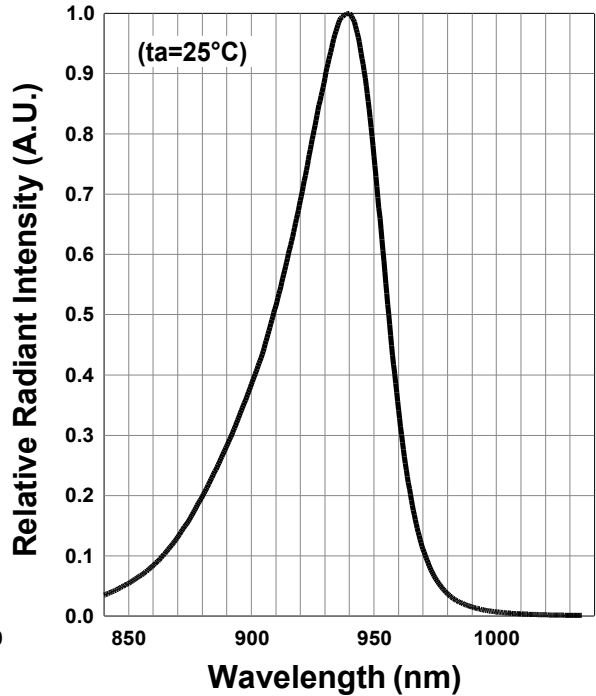
Relative Radiant Intensity - Ambient Temperature



Peak Wavelength - Ambient Temperature



Relative Spectral Emission



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.

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