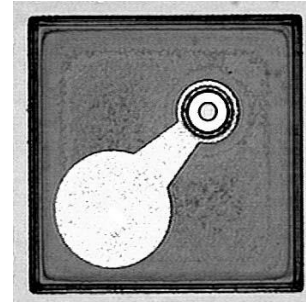


Features

- : 850nm wavelength range
- : Low current and voltage

Description



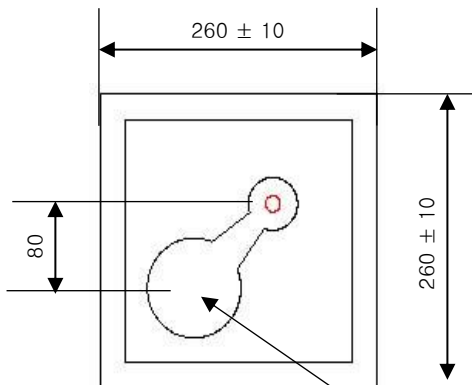
Applications

- : High speed Data Communications
- : Gigabit Ethernet
- : Fiber Channel

Absolute Maximum Ratings

| Parameter | Rating |
|----------------------------|---------------|
| Storage Temperature | -40 to 100 °C |
| Operating Temperature | 0 to 85 °C |
| Continuous Forward Current | 10mA |
| Continuous Reverse Voltage | 5V (@10µA) |

Dimensions



unit : µm

Die Height : 200±15µm

Anode bonding pad(Φ 95)

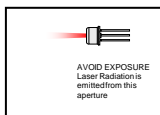


| Parameters | Symbol | Specified | | | Unit | Test Conditions |
|---------------------------------|----------------------------|-----------|------|------|---------------------|---|
| | | Min. | Typ. | Max. | | |
| Threshold Current | I_{th} | | 1 | 2 | mA | Cw |
| I_{th} Temperature Variation | ΔI_{th} | | 1.5 | | mA | $T_a=0$ to 85°C |
| Slope Efficiency | η | | 0.3 | | W/A | $I_f = 7\text{mA}$ |
| η Temperature Variation | $\Delta\eta / \Delta T$ | | -0.5 | | %/ $^\circ\text{C}$ | $T_a=0$ to 85°C at 7mA |
| Optical Output Power | P_o | | 2.0 | | mW | $I_f = 7\text{mA}$ |
| Peak Wavelength | λ | 840 | 850 | 860 | nm | $I_f = 7\text{mA}$ |
| λ Temperature Variation | $\Delta\lambda / \Delta T$ | | 0.06 | | | $T_a=0$ to 85°C at 7mA |
| Spectral Bandwidth (RMS) | $\Delta\lambda$ | | | 0.85 | nm | $I_f = 7\text{mA}$ |
| Beam Divergence | Θ | 14 | | 30 | $^\circ$ | $P_o= 2.0\text{mW}$, (Full Width, $1/e^2$) |
| Operating Voltage | V_f | | 2.1 | 2.4 | V | $I_f = 7\text{mA}$ |
| Breakdown Voltage | V_b | | -10 | | V | |
| Dynamic Resistance | R_d | | 60 | 90 | Ohm | $I_f = 7\text{mA}$ |



Notes

* These specifications are subject to change without notice.



| | |
|---------------|--|
| NOTICE | The inherent design of this component causes it to be sensitive to electrostatic discharge(ESD). To prevent ESD-induced damage and/or degradation to equipment, take normal ESD precautions when handling this product |
| DANGER | The VCSEL is a class IIIb laser and should be treated as a potential eye hazard. Due to the size of the component, the applicable warning logotype, aperture label, and certification / identification label cannot be placed on the component itself. |