

**Features**

- : 980nm wavelength range
- : High data rate 1.25 / 2.5Gbps
- : High reliability
- : Low current and voltage
- : Other configurations available on request

**Description**



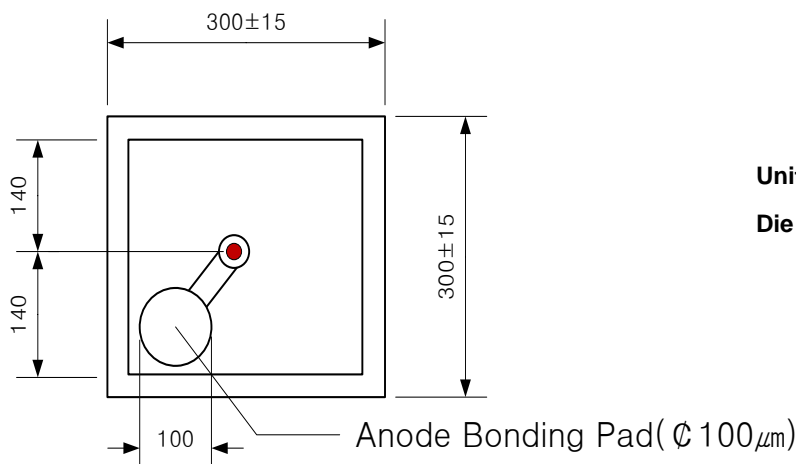
**Applications**

- : 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	12mA
Continuous Reverse Voltage	5V (@10µA)

**Dimensions**





Electro-Optics Characteristics (T<sub>a</sub>=25°C unless otherwise stated)

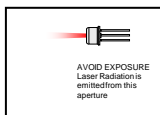
Parameters	Symbol	Specified			Unit	Test Conditions
		Min.	Typ.	Max.		
Threshold Current	I <sub>th</sub>		1.5		mA	CW
I <sub>th</sub> Temperature Variation	ΔI <sub>th</sub>		1.5		mA	T <sub>a</sub> =0 to 85°C
Slope Efficiency	η	0.2	0.3	0.5	W/A	I <sub>f</sub> = 6mA
η Temperature Variation	Δη / ΔT		-0.5		%/°C	T <sub>a</sub> =0 to 85°C at 6mA
Optical Output Power	P <sub>o</sub>		1.5		mW	I <sub>f</sub> = 6mA
Peak Wavelength	λ	970	980	990	nm	I <sub>f</sub> = 6mA
λ Temperature Variation	Δλ / ΔT		0.06			T <sub>a</sub> =0 to 85°C at 6mA
Spectral Bandwidth (RMS)	Δλ			0.85	nm	I <sub>f</sub> = 6mA
Beam Divergence	Θ	14		30	°	P <sub>0</sub> =1.5mW, ( Full Width, 1/e <sup>2</sup> )
Operating Voltage	V <sub>f</sub>		1.6	2.0	V	I <sub>f</sub> = 6mA
Breakdown Voltage	V <sub>b</sub>		-10		V	-
Laser Turn-On Time	t <sub>ON</sub>			50	ns	Mod. Freq. = 200kHz
Dynamic Resistance	R <sub>d</sub>	25	35	55	Ohm	I <sub>f</sub> = 6mA

Notes

1. High power or sub-milliampere threshold current can be provided on request.
2. Tighter wavelength specifications are available on request.
3. Our technological team have amassed a wealth of experience in the development of the epitaxy and processing of VCSELs.

If you have a specific application for a VCSEL, please call or e-mail. One of our specialists will be happy to discuss your particular requirements

\* These specifications are subject to change without notice.



<b>NOTICE</b>	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
<b>DANGER</b>	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.

Characteristics Curves

