



Features

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

Description



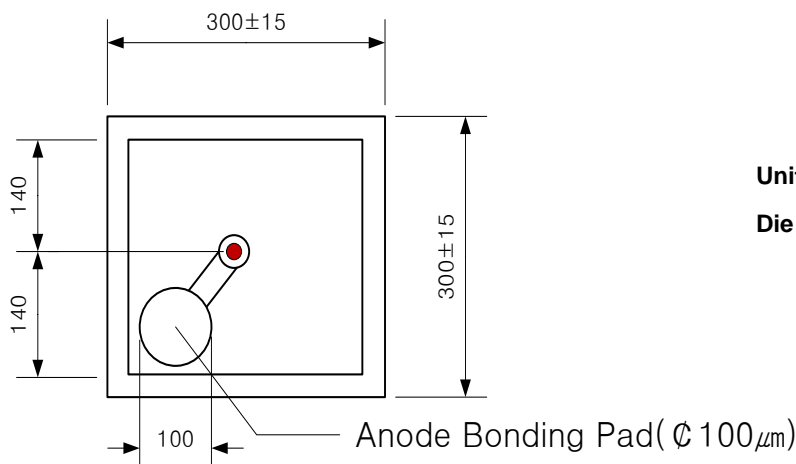
Applications

- : 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)

Absolute Maximum Ratings





Electro-Optics Characteristics ($T_a=25^{\circ}\text{C}$ unless otherwise stated)

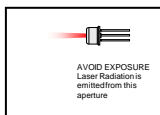
Parameters	Symbol	Specified			Unit	Test Conditions
		Min.	Typ.	Max.		
Threshold Current	I_{th}		1.5		mA	CW
I_{th} Temperature Variation	ΔI_{th}		1.5		mA	$T_a=0$ to 85°C
Slope Efficiency	η	0.2	0.3	0.5	W/A	$I_f = 6\text{mA}$
η Temperature Variation	$\Delta\eta / \Delta T$		-0.5		%/ $^{\circ}\text{C}$	$T_a=0$ to 85°C at 6mA
Optical Output Power	P_o		1.5		mW	$I_f = 6\text{mA}$
Peak Wavelength	λ	970	980	990	nm	$I_f = 6\text{mA}$
λ Temperature Variation	$\Delta\lambda / \Delta T$		0.06			$T_a=0$ to 85°C at 6mA
Spectral Bandwidth (RMS)	$\Delta\lambda$			0.85	nm	$I_f = 6\text{mA}$
Beam Divergence	Θ	14		30	$^{\circ}$	$P_0=1.5\text{mW}$, (Full Width, $1/e^2$)
Operating Voltage	V_f		1.6	2.0	V	$I_f = 6\text{mA}$
Breakdown Voltage	V_b		-10		V	-
Laser Turn-On Time	t_{ON}			50	ns	Mod. Freq. = 200kHz
Dynamic Resistance	R_d	25	35	55	Ohm	$I_f = 6\text{mA}$

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.



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.



Characteristics Curves

