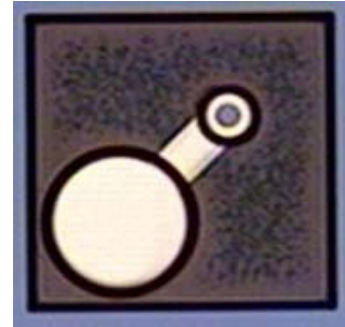


**Features**

- : 850nm wavelength range
- : High data rate 1.25 /2.5Gbps
- : Low current operation available
- : High reliability

**Description**



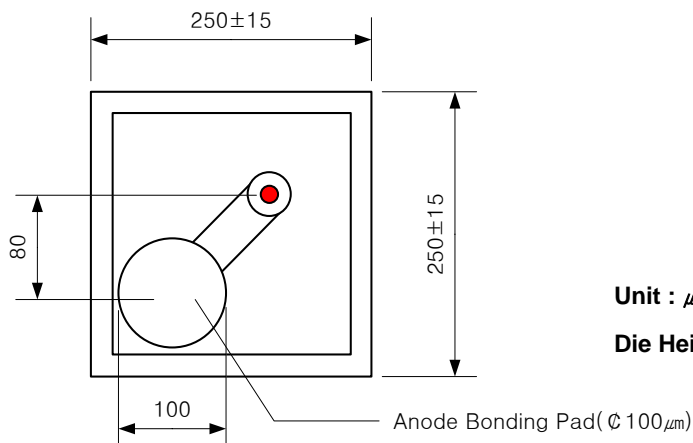
**Applications**

- : 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**



**Unit : µm**

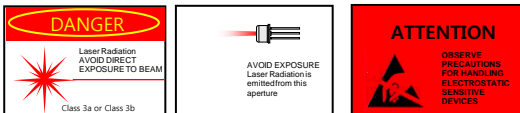
**Die Height : 200±15µm**

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	3	mA	Cw
$I_{th}$ Temperature Variation	$\Delta I_{th}$		1.5		mA	$T_a=0$ to $85^\circ\text{C}$
Slope Efficiency	$\eta$	0.2	0.3	0.5	W/A	$I_f = 7\text{mA}$
$\eta$ Temperature Variation	$\Delta\eta / \Delta T$		-0.5		%/ $^\circ\text{C}$	$T_a=0$ to $85^\circ\text{C}$ at 7mA
Optical Output Power	$P_o$		1.8		mW	$I_f = 7\text{mA}$
Peak Wavelength	$\lambda$	840	850	860	nm	$I_f = 7\text{mA}$
$\lambda$ Temperature Variation	$\Delta\lambda / \Delta T$		0.06			$T_a=0$ to $85^\circ\text{C}$ at 7mA
Spectral Bandwidth (RMS)	$\Delta\lambda$			0.85	nm	$I_f = 7\text{mA}$
Beam Divergence	$\Theta$	14		30	$^\circ$	$P_o=1.8\text{mW}$ , ( Full Width, $1/e^2$ )
Operating Voltage	$V_f$		1.8	2.2	V	$I_f = 7\text{mA}$
Breakdown Voltage	$V_b$		-10		V	
Dynamic Resistance	$R_d$	20	35	55	Ohm	$I_f = 7\text{mA}$
Rise and Fall times	$t_r/t_f$			110	ps	20% to 80%

Notes

\* 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.