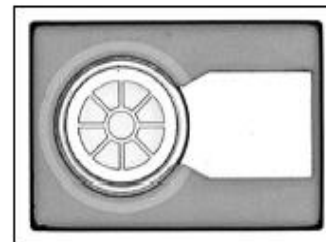




**Features**

- : 650 nm wavelength range
- : No threshold
- : Designed for POF data communications
- : Other configurations available on request

**Description**



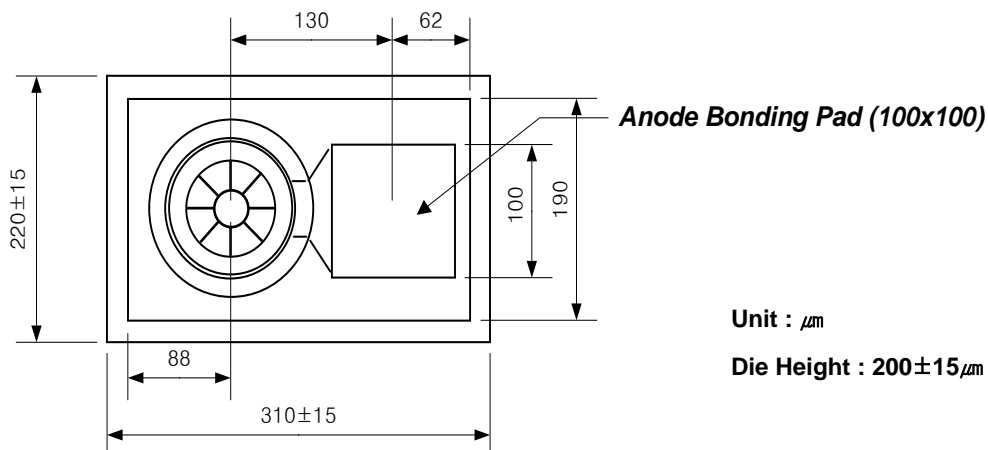
**Applications**

- : Data Link Communication
- : IEEE 1394.b
- : Home Networking
- : Sensors

**Absolute Maximum Ratings**

Parameter	Rating
Storage Temperature	-40 to 100 °C
Operating Temperature	-20 to 70 °C
Continuous Forward Current	30mA
Continuous Reverse Voltage	5V (@10µA)

**Dimensions**





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

Parameters	Symbol	Specified			Unit	Test Conditions
		Min.	Typ.	Max.		
Total Radiant Flux	$\Phi_o$		1	1.5	mW	$I_f=20\text{mA}$ *
Radiant Intensity	$P_o$	0.2	0.3		mW/sr	$I_f=20\text{mA}$ **
Peak Wavelength	$\lambda_p$	640	650	660	nm	$I_f=20\text{mA}$ **
Spectral Width	$\Delta\lambda$		7		nm	$T_a=0$ to $70^\circ\text{C}$ at $20\text{mA}$ **
Beam Divergence	$\Theta$		90		Deg.	$I_f=20\text{mA}$ , FWHM
Forward Voltage	$V_f$		2.0	2.2	V	$I_f=20\text{mA}$
Rise Time / Fall Time	$t_R/t_F$		3/3		ns	$I_f=20\text{mA}$ , (10% - 90%)
Data Rate	$T_{\text{Data}}$		155		Mbps	$I_f=20\text{mA}$

Test Data were measured in TO header of wire bonded chip

\* Measured in integrating sphere

\*\* Measured in axial direction (0.01sr)

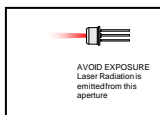
\*\*\* Value is referenced to the vender's measurement system (correlation to customer product is required).

**Thermal Characteristics**

Parameters	Symbol	Specified			Unit	Test Conditions
		Min.	Typ.	Max.		
$P_o$ Temp Coefficient	$\Delta P_o / \Delta T$		-0.6		%/ $^\circ\text{C}$	$-20^\circ\text{C}$ ~ $70^\circ\text{C}$ at $I_f=20\text{mA}$
$\lambda_p$ Temp Coefficient	$\Delta \lambda / \Delta T$		0.07		nm/ $^\circ\text{C}$	$-20^\circ\text{C}$ ~ $70^\circ\text{C}$ at $I_f=20\text{mA}$

**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.



Characteristics Curves

