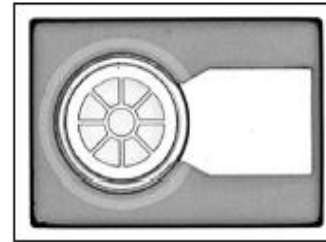




Features

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

Description



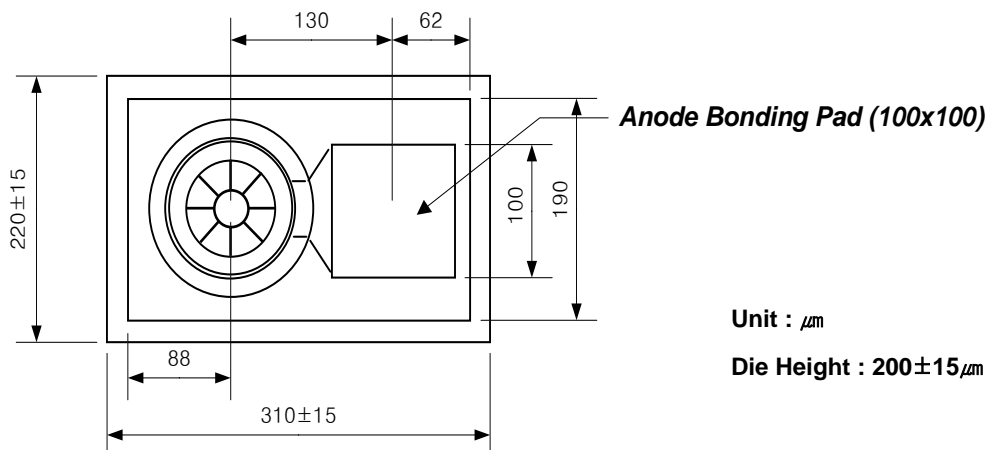
Applications

- : 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	Φ_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	λ_p	640	650	660	nm	$I_f=20\text{mA}$ **
Spectral Width	$\Delta\lambda$		7		nm	$T_a=0$ to 70°C at 20mA **
Beam Divergence	Θ		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_{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)

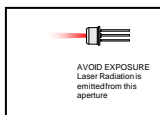
*** Value is referenced to the vender's measurement system (correlation to customer product is required).

Thermal Characteristics

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

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.



Characteristics Curves

