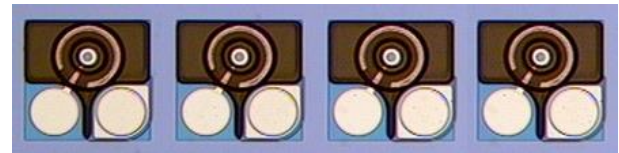




Features

- : Multi-mode 850nm wavelength range
- : Data Rate up to 14 Gbps
- : 1×4 chips
- : Two top-side wire bond pads

Description



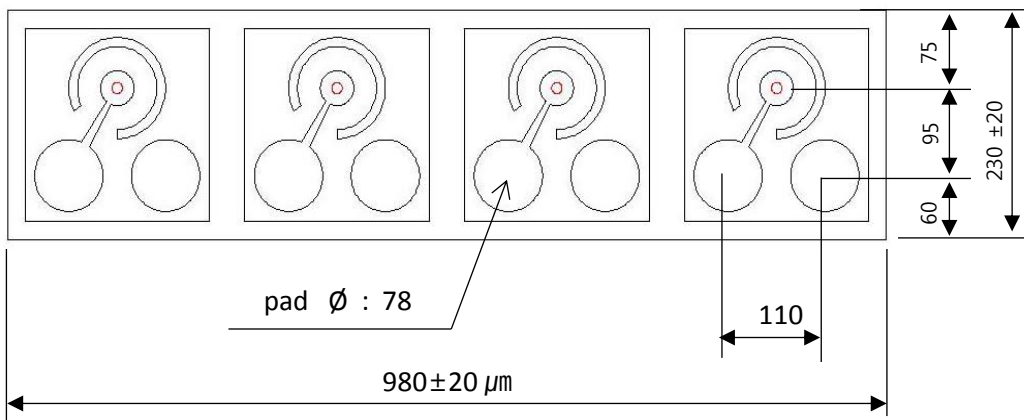
Applications

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

Absolute Maximum Ratings



unit : μm

Die Height : 150±15μm

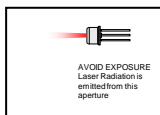


Electro-Optics Characteristics ($T_a=25^\circ\text{C}$ unless otherwise stated)

Parameters	Symbol	Specified			Unit	Test Conditions
		Min.	Typ.	Max.		
Threshold Current	I_{th}		0.6	1.2	mA	CW
I_{th} Temperature Variation	ΔI_{th}		1.5		mA	$T_a= 0$ to 85°C
I_{th} Uniformity within Array	ΔI_{th}^a			0.2	mA	CW
Slope Efficiency	η		0.4		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		2.5		mW	$I_f = 6\text{mA}$
P_o Uniformity within Array	ΔP_o^a			0.3	mW	$I_f = 6\text{mA}$
Peak Wavelength	λ	840	850	860	nm	$I_f = 6\text{mA}$ at Room Temperature
λ Temperature Variation	$\Delta \lambda / \Delta T$		0.06		nm/ $^\circ\text{C}$	$T_a= 0$ to 85°C at 6mA
Spectral Bandwidth (RMS)	$\Delta \lambda$			0.5	nm	$I_f = 6\text{mA}$
Beam Divergence	Θ	14		30	$^\circ$	$P_o= 2.5$ mW, (Full Width, $1/e^2$)
Operating Voltage	V_f		2.2	2.5	V	$I_f = 6\text{mA}$
Breakdown Voltage	V_b		-10		V	
Dynamic Resistance	R_d		80	100	Ohm	$I_f = 6\text{mA}$
Small Signal Bandwidth	f_{-3dB}		12		GHz	$I_f = 6\text{mA}$

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.