



High Speed 14Gbps 850nm Multimode VCSEL Chip

VCC-85A14G

Data Sheet

Features

- Multi-mode 850nm VCSEL chip
- High data rate 14Gbps
- Two top-side wire bond pads

Applications

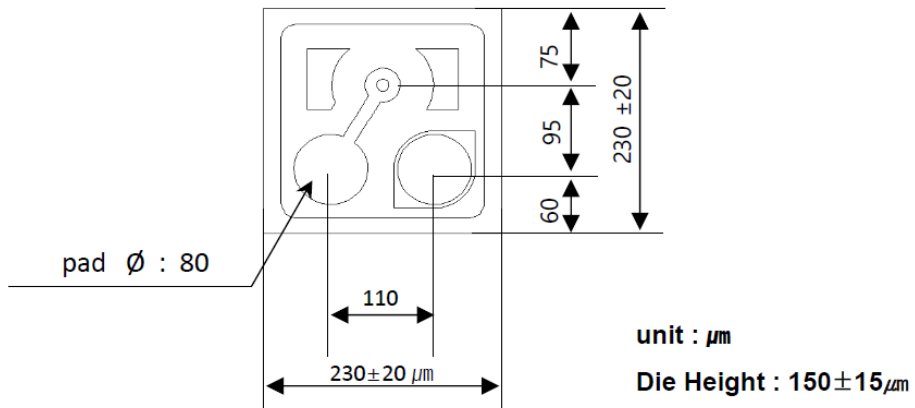
- High speed Data communications
- Gigabit ethernet
- Fiber channel

Specifications

Absolute Maximum Ratings				
Parameters	Min.	Max.	Unit	Conditions
Storage Temperature	-40	100	°C	
Operating Temperature	0	85	°C	
Continuous Forward Current		10	mA	
Continuous Reverse Voltage		5	V	10uA

Electro-Optical Characteristics (T _a =25°C unless otherwise stated)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Threshold Current	I _{th}		0.6		mA	CW
Slope Efficiency	η		0.5		W/A	I _f =6mA
Optical Output Power	P _o		3.0		mW	I _f =6mA
Peak Wavelength	λ _p	840	850	860	nm	I _f =6mA at room temperature
Spectral Bandwidth (RMS)	Δλ			0.5	nm	I _f =6mA
Beam Divergence	Θ	14		30	°	I _f =6mA, (Full Width, 1/e ²)
Forward Voltage	V _f		2.2	2.5	V	I _f =6mA
Breakdown Voltage	V _b		-10		V	
Dynamic Resistance	R _d		80	100	Ohm	I _f =6mA

Thermal Characteristics						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
I _{th} Temperature Variation	ΔI _{th}		1.5		mA	T _a =-40 to 85°C
η Temperature Coefficient	Δη/ΔT		-0.5		%/°C	T _a =-40 to 85°C, I _f =6mA
λ Temperature Coefficient	Δλ/ΔT		0.06		nm/°C	T _a =-40 to 85°C, I _f =6mA

Outline Dimensions**Additional Notes**

- 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.
- Specifications are subject to change without notice.