



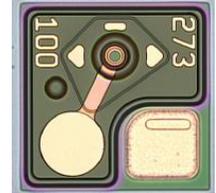
VCC-98A10G

10Gb/s 980nm Multimode Dual Top Contact VCSEL Die

Data Sheet

Features

- 980nm VCSEL chip
- High data rate 10Gbps
- P and N bonding pad on top surface
- Low threshold and operation current
- High temperature operation from -40°C to 125°C



Applications

- High speed Data communications
- Gigabit ethernet
- Fiber channel

Specifications

Absolute Maximum Ratings				
Parameters	Min.	Max.	Unit	Conditions
Storage Temperature	-40	125	°C	
Operating Temperature	-40	125	°C	
Maximum Operating Current		12	mA	
Reverse Voltage		5	V	

Electro-Optical Characteristics (T _a =25°C unless otherwise stated)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Threshold Current	I _{th}		0.7		mA	CW
Slope Efficiency	η		0.4		mW/mA	I _r =6mA
Optical Output Power	P _o		1.5		mW	I _r =6mA
Peak Wavelength	λ _P	970		990	nm	I _r =6mA
Spectral Bandwidth (RMS)	Δλ		0.5		nm	I _r =6mA
Beam Divergence	Θ		27		°	I _r =6mA (1/e ²)
Forward Voltage	V _f		2.0		V	I _r =6mA
Series Resistance	R _s		85		Ohm	I _r =6mA
3dB Bandwidth	BW		15		GHz	I _r =6mA

Typical Characteristics

Fig. 1 Typical Optical Characteristics

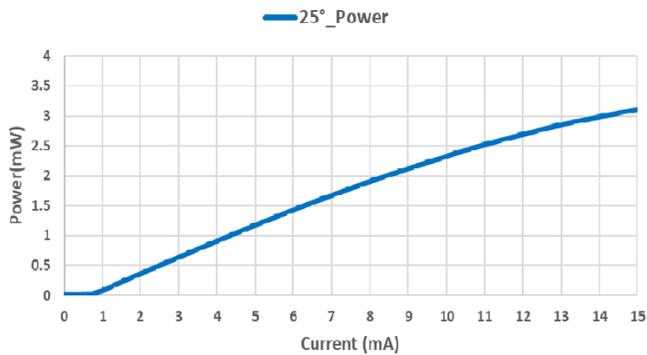
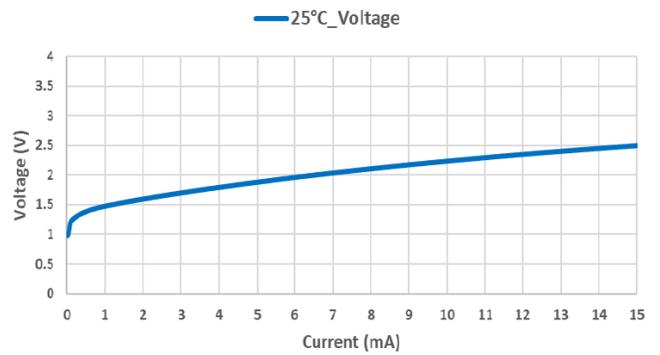
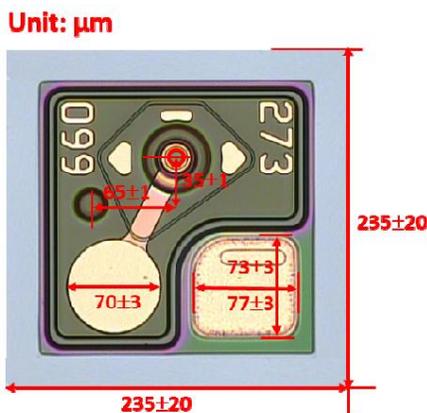


Fig. 2 Typical Electrical Characteristics



Outline Dimensions



Chip Length: 235±20μm
 Chip Width: 235±20μm
 Chip Thickness: 150±12.5μm

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.