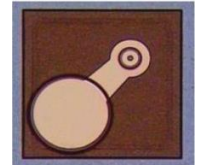




940nm 1mW VCSEL Chip

VCC-94G1A



Features

- 940nm single emitter VCSEL chip
- Output power: 1mW
- Gaussian beam profile
- High reliability

Applications

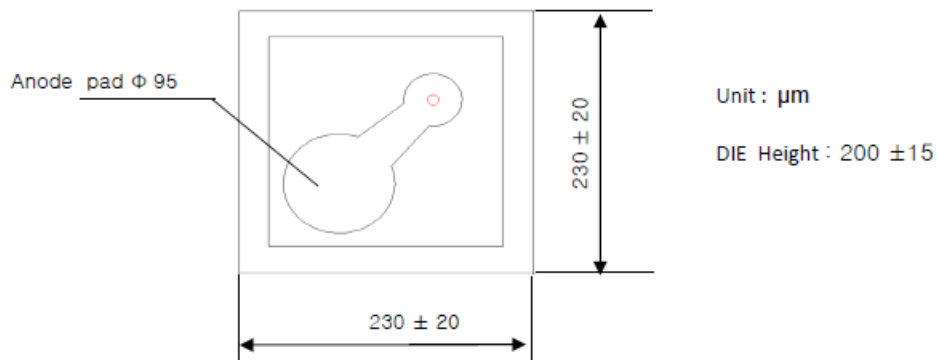
- Consumer electronics
- Safety sensor
- Proximity sensor

Specifications

Absolute Maximum Ratings				
Parameters	Min.	Max.	Unit	Conditions
Storage Temperature	-40	85	°C	
Operating Temperature	-10	85	°C	
Continuous Forward Current		5	mA	

Electro-Optical Characteristics (T _a =25°C unless otherwise stated)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Threshold Current	I _{th}		0.5	1.0	mA	CW
Slope Efficiency	η		0.8		W/A	I _f =2mA
Optical Output Power	P _o		1		mW	I _f =2mA
Peak Wavelength	λ _P	930	940	950	nm	I _f =2mA
Beam Divergence	θ		12		°	P _o =1mW (FWHM)
Side-Mode Suppression Ratio	SMSR	15			dB	P _o =1mW
Forward Voltage	V _f		2.1	2.4	V	I _f =2mA
Breakdown Voltage	V _b	-10			V	
Dynamic Resistance	R _d		150		Ohm	I _f =2mA

Thermal Characteristics						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
I _{th} Temperature Variation	ΔI _{th}		0.5		mA	T _a =-10 to 85°C
λ Temperature Coefficient	Δλ/ΔT		0.06		nm/°C	T _a =-10 to 85°C at 2mA

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.