



VCC-94A10H

940nm 10mW VCSEL Chip



Features

- 940nm multi-emitter VCSEL chip
- Output power: 10mW
- Gaussian beam profile
- High reliability

Applications

- Consumer electronics
- Safety sensor

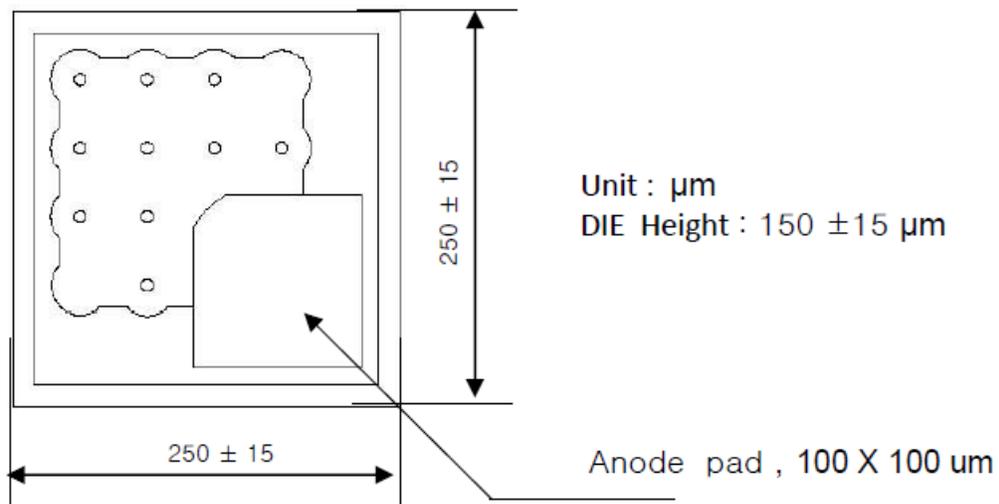
Specifications

Absolute Maximum Ratings					
Parameters	Min.	Max.	Unit	Conditions	
Storage Temperature	-40	85	°C		
Operating Temperature	-10	70	°C		
Continuous Forward Current		30	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}		6.0		mA	CW
Slope Efficiency	η	0.4	0.5		W/A	I _r =20mA
Optical Output Power	P _o		12		mW	I _r =20mA
Peak Wavelength	λ _p	930	940	950	nm	I _r =20mA
Beam Divergence	Θ		10		°	P _o =10mW (FWHM)
Operating Voltage	V _f		2.1	2.4	V	I _r =20mA
Breakdown Voltage	V _b		-10		V	
Dynamic Resistance	R _d		20	40	Ohm	I _r =20mA

Thermal Characteristics						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
I _{th} Temperature Variation	ΔI _{th}		3.0		mA	T _a =-10 to 70°C
λ Temperature Coefficient	Δλ/ΔT		0.06		nm/°C	T _a =-10 to 70°C, I _r =20mA
η Temperature Variation	Δη/ΔT		-0.5		%/°C	T _a =-10 to 70°C, I _r =20mA

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.