

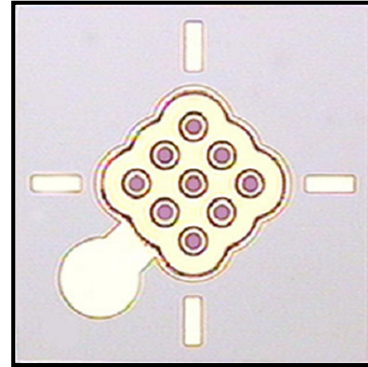
Features

- : 20mW High power VCSEL
- : 850nm wavelength range
- : High reliability
- : Other configurations available on request

Applications

- : Free space optics (FSO)
- : Sensor

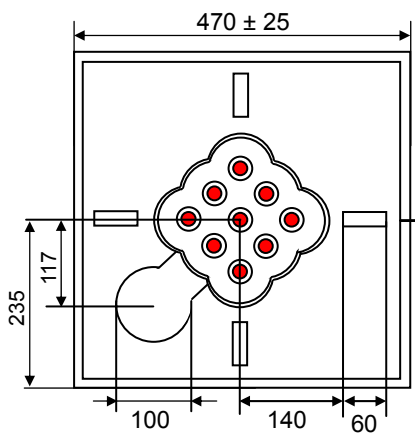
Description



Absolute Maximum Ratings

Parameter	Rating
Storage Temperature	-40 to 100 °C
Operating Temperature	0 to 60 °C
Lead Solder Temperature	260 °C, 10 sec
Continuous Forward Current	80mA
Continuous Reverse Voltage	5V (@10μA)

Dimensions



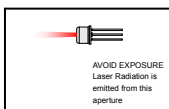
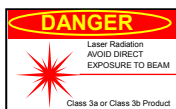
Unit: μm
Die Height: 200±15 μm

Electro-Optics Characteristics (T_a=25°C unless otherwise stated)

Parameters	Symbol	Specified			Unit	Test Conditions
		Min.	Typ.	Max.		
Threshold Current	I _{th}		15		mA	CW
I _{th} Temperature Variation	ΔI _{th}		10		mA	T _a =0 to 60 °C
Slope Efficiency	η	0.2	0.4		W/A	I _f = 50mA
η Temperature Variation	Δη / ΔT		-0.5		%/ °C	T _a =0 to 60 °C at 50mA
Optical Output Power	P _o		20		mW	I _f = 50mA
Peak Wavelength	λ	840	850	860	nm	I _f = 50mA
λ Temperature Variation	Δλ / ΔT		0.06			T _a =0 to 60 °C at 50mA
Spectral Bandwidth (RMS)	Δλ			0.85	nm	I _f = 50mA
Operating Voltage	V _f		1.8	2.1	V	I _f = 50mA
Breakdown Voltage	V _b		-10		V	
Dynamic Resistance	R _d		10	20	Ohm	I _f = 50mA

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.

Characteristics Curves

