

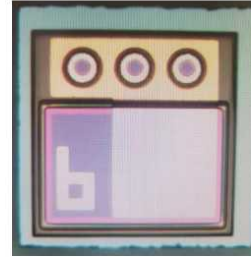
HV68-0003M1 Pre1.0

7mW 680 nm VCSEL Chip

Features

- : 680nm multi-mode emitter
- : 7mW VCSEL
- : Low threshold and operating currents
- :
- :
- :

Description



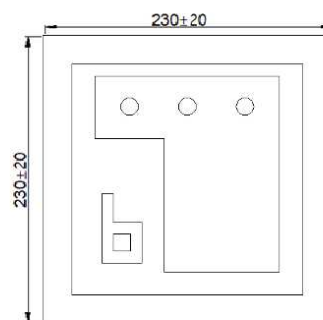
Applications

- : Industrial sensors
- : Low light laser therapy
- :
- :

Absolute Maximum Ratings

Parameter	Rating
Storage Temperature	-40 to 85 °C
Operating Temperature	0 to 50 °C
Continuous Forward Current	20mA
Continuous Reverse Voltage	5V(@10uA)

Dimensions



Unit : μm

Height : $120 \pm 10\mu\text{m}$

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Electro-Optics Characteristics ($T_a=25^{\circ}\text{C}$ unless otherwise stated)

Parameters	Symbol	Specified			Unit	Test Conditions
		Min.	Typ.	Max.		
Threshold Current	I_{th}		5.0		mA	CW
I_{th} Temperature Variation	ΔI_{th}		2.0		mA	$T_a = 0 \text{ to } 50^{\circ}\text{C}$
Slope Efficiency	η		0.5		W/A	$I_f = 15\text{mA}$
Optical Output Power	P_o		7		mW	$I_f = 15\text{mA}$
Peak Wavelength	λ_p	670	680	690	nm	$I_f = 15\text{mA}$
λ Temperature Variation	$\Delta \lambda / \Delta T$		0.06		nm/ $^{\circ}\text{C}$	$T_a = 0 \text{ to } 50^{\circ}\text{C}$ at 15mA
Beam Divergence	Θ		20		$^{\circ}$	$P_o = 7\text{ mW}$ (Full width, $1/e^2$)
Operating Voltage	V_f		2.5		V	$I_f = 15\text{mA}$
Breakdown Voltage	V_b	-10			V	
Dynamic Resistance	R_d		50		Ohm	$I_f = 15\text{mA}$

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.

Pre 1.0