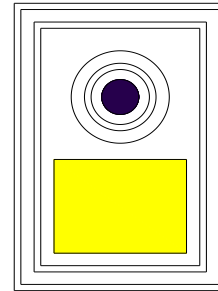




Features

- : 680 nm wavelength range
- : Low current and voltage
- : High reliability
- : 3mW VCSEL (@9mA)
- : Other configurations available on request

Description



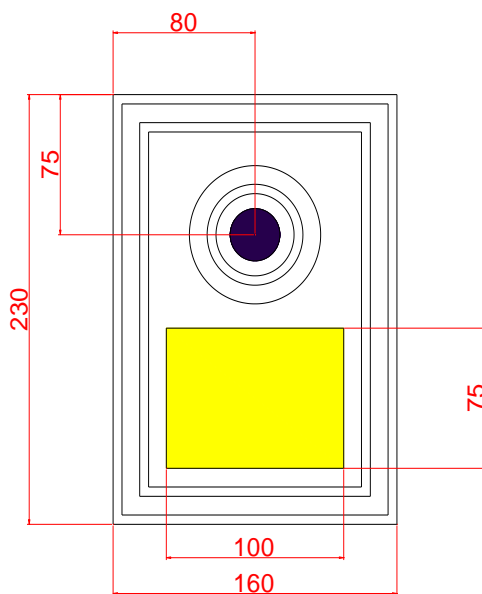
Applications

- : Consumer Electronics
- : Position Sensors
- : Medical Instruments
- : Home Networking
- : Low power consumption application
- : such as battery-operated equipment

Absolute Maximum Ratings

Parameter	Rating
Storage Temperature	-40 to 85 °C
Operating Temperature	-20 to 50 °C
Maximum Pulse Current	20mA (≤ 1μs pulse width, 1% duty cycle, T=25°C)
Continuous Reverse Voltage	5V (@10μA)

Dimensions



Unit : μm

DIE Height : 100 ±15 μm

Emitter surface area diameter : 28μm

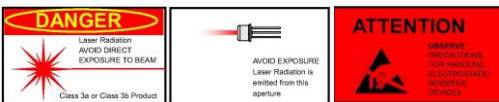


Electro-Optics Characteristics ($T_a=25^\circ\text{C}$ unless otherwise stated)

Parameters	Symbol	Specified			Unit	Test Conditions
		Min.	Typ.	Max.		
Threshold Current	I_{th}		4		mA	
Slope Efficiency	η		0.5		W/A	$I_f = 9\text{ mA, CW}$
Optical Output Power	P_o		3.0		mW	$I_f = 9\text{ mA, CW}$
Pulse Output Power	$P_o @\text{pulse}$		4			$I_f = 9\text{ mA, } \leq 1\mu\text{s pulse width, } 1\% \text{ duty cycle}$
Peak Wavelength	λ_P	670	680	690	nm	$I_f = 9\text{ mA, CW}$
Beam Divergence	Θ		25		°	$I_f = 9\text{ mA, CW, (Full width, } 1/e^2)$
Operating Voltage	V_f		2.5		V	$I_f = 9\text{ mA, CW}$

Notes

* These specifications are subject to change without notice.

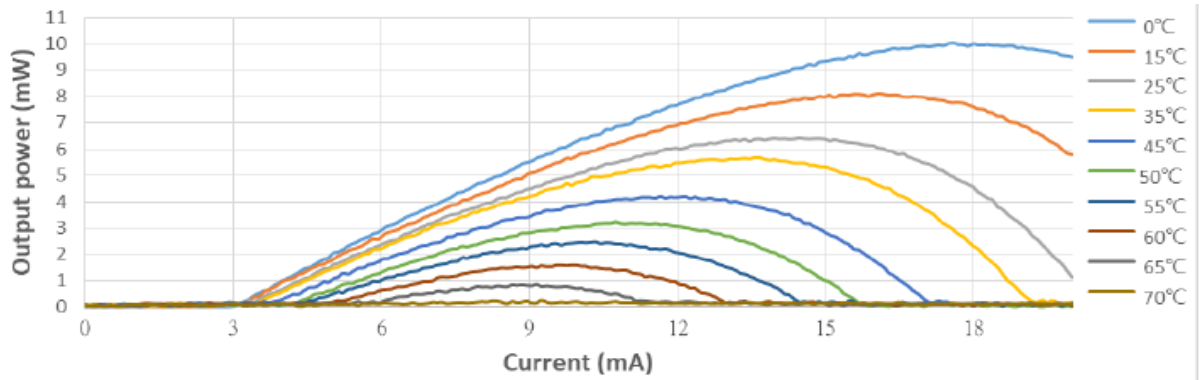


NOTICE	The inherent design of this component causes it to be sensitive to electrostatic discharge(ESD). To prevent ESD-induced damage and/or degradation to equipment, take normal ESD precautions when handling this product
DANGER	The VCSEL is a class IIIb laser and should be treated as a potential eye 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

LIV vs Temperature



Temperature Vs. Voltage

