

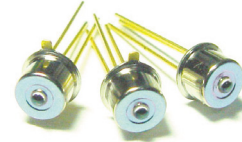
Features

- : 10 mW High power VCSEL
- : 1Gbps data rates
- : 850nm wavelength range
- : Ball lens Type TO-46 Can Package
- : Other configurations available on request

Applications

- : High speed Data Communications
- : Gigabit Ethernet
- : Fiber Channel
- : Free Space Optics
- : Sensor

Description

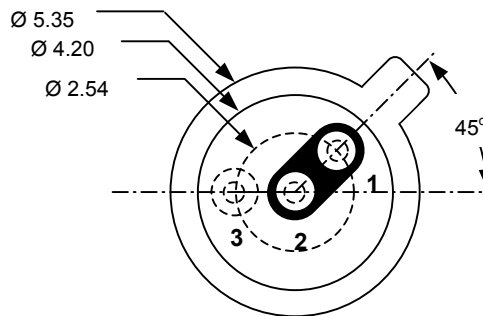
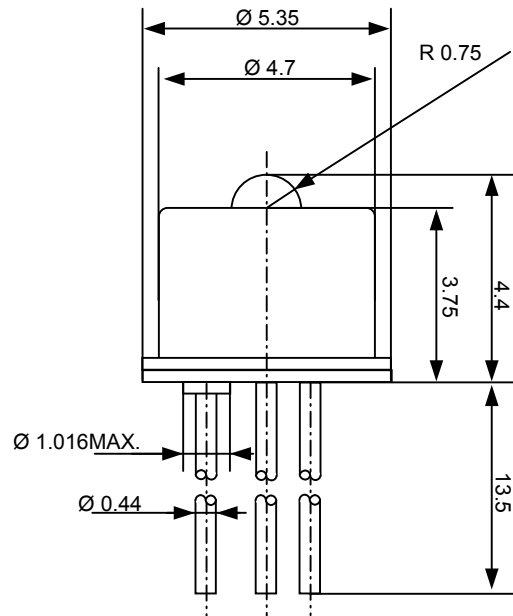


Absolute Maximum Ratings

Parameter	Rating
Storage Temperature	-40 to 100 °C
Operating Temperature	0 to 70 °C
Lead Solder Temperature	260 °C, 10 sec
Continuous Forward Current	30 mA
Continuous Reverse Voltage	5V (@10µA)

Dimensions

Unit:mm



Bottom view

PINOUT

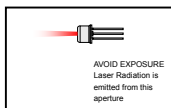
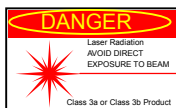
Number	Function
1	A _{LD}
2	K _{LD}
3	NC

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

Parameters	Symbol	Specified			Unit	Test Conditions
		Min.	Typ.	Max.		
Threshold Current	I _{th}		5		mA	CW
I _{th} Temperature Variation	ΔI _{th}		2.5		mA	T _a =0 to 70 °C
Slope Efficiency	η	0.2	0.4		W/A	I _f = 20mA
η Temperature Coefficient	Δη / ΔT		-0.5		%/ °C	T _a =0 to 70 °C at 20mA
Optical Output Power	P _o	8	10		mW	I _f = 20mA
Peak Wavelength	λ	840	850	860	nm	I _f = 20mA
λ _p Temperature Coefficient	Δλ / ΔT		0.06			T _a =0 to 70 °C at 20mA
Forward Voltage	V _f	1.6	1.9	2.2	V	I _f = 20mA
Breakdown Voltage	V _b		-10		V	
Dynamic Resistance	R _d		25	40	Ohm	I _f = 20mA
Focal Length	F _D		2.5		mm	

Notes

* These specifications are subject to change without notice



NOTICE

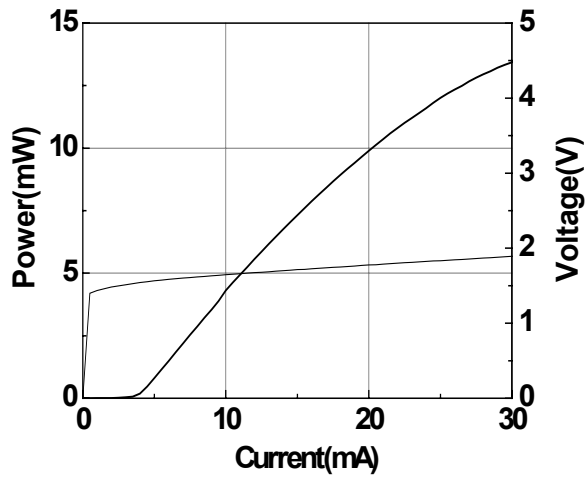
The inherent design of this component causes it to be sensitive to electrostatic discharge(ESD). To prevent ESD-induced damage and/or degradation to equipment, take normal ESD precautions when handling this product

DANGER

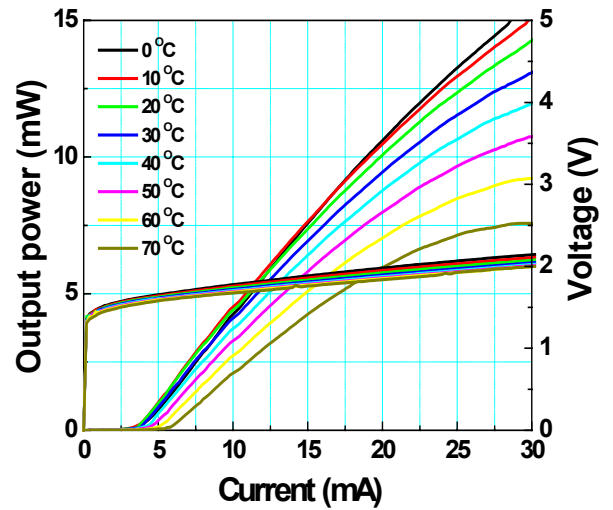
The VCSEL is a class IIIb laser and should be treated as a potential eye hazard. Due to the size of the component, the applicable warning logotype, aperture label, and certification / identification label cannot be placed on the component itself.

Characteristics Curves

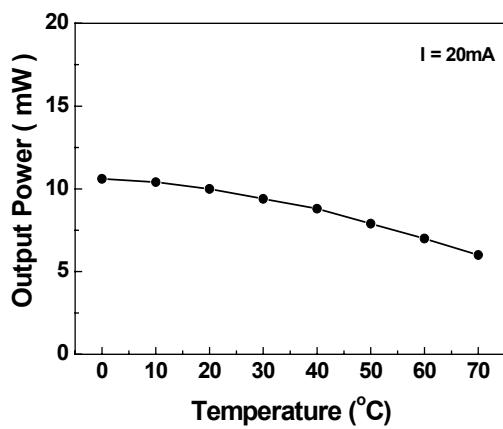
LIV Curve



LIV vs Temperature



P_o vs Temperature



I_{th} vs Temperature

