

Features

- : Multi-mode 780nm VCSEL
- : 2.5 Gbps data rates
- : Low Drive current and voltage
- : Ball Lens Type TO-46 Can Package
- : Other configurations available on request

Applications

- : High speed Data Communications
- : Gigabit Ethernet
- : Fiber Channel

Description

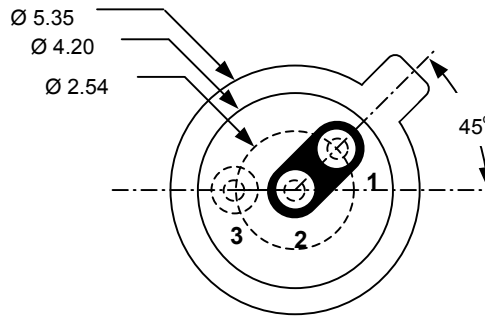
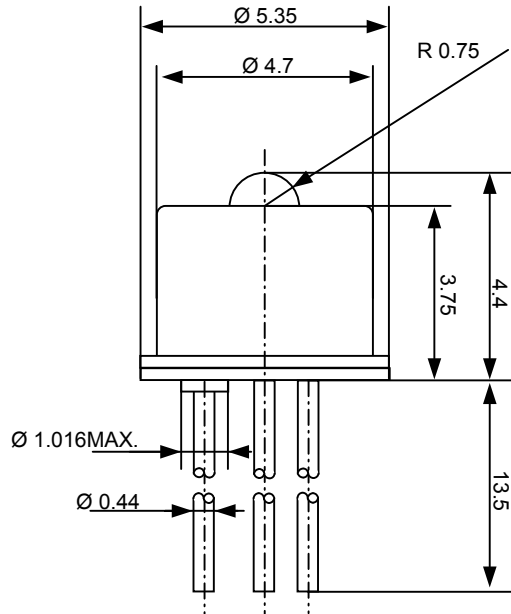


Absolute Maximum Ratings

Parameter	Rating
Storage Temperature	-40 to 100 °C
Operating Temperature	0 to 70 °C
Lead Solder Temperature	260 °C, 10 sec
Continuous Forward Current	12mA
Continuous Reverse Voltage	5V (@10μA)

Dimensions

Unit:mm



Bottom view

PINOUT

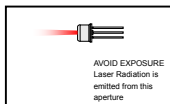
Number	Function
1	A _{LD}
2	K _{LD}
3	NC

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

Parameters	Symbol	Specified			Unit	Test Conditions
		Min.	Typ.	Max.		
Threshold Current	I_{th}		2.5		mA	CW
I_{th} Temperature Variation	ΔI_{th}		1		mA	$T_a=0$ to 70°C
Slope Efficiency	η	0.2	0.4	0.5	W/A	$I_f = 6\text{mA}$
η Temperature Variation	$\Delta\eta / \Delta T$		-0.5		%/ $^{\circ}\text{C}$	$T_a=0$ to 70°C at 6mA
Optical Output Power	P_o		1.5		mW	$I_f = 6\text{mA}$
Peak Wavelength	λ	770	780	790	nm	$I_f = 6\text{mA}$
λ Temperature Variation	$\Delta\lambda / \Delta T$		0.06			$T_a=0$ to 70°C at 6mA
Spectral Bandwidth (RMS)	$\Delta\lambda$			0.85	nm	$I_f = 6\text{mA}$
Operating Voltage	V_f		1.9	2.2	V	$I_f = 6\text{mA}$
Breakdown Voltage	V_b		-10		V	
Dynamic Resistance	R_d	25	35	55	Ohm	$I_f = 6\text{mA}$
Focal Length	F_D		2.5		mm	Distance from the lens surface

Notes

* These specifications are subject to change without notice


NOTICE

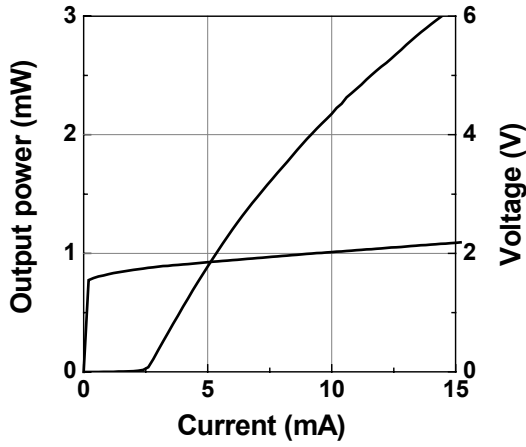
The inherent design of this component causes it to be sensitive to electrostatic discharge(ESD). To prevent ESD-induced damage and/or degradation to equipment, take normal ESD precautions when handling this product

DANGER

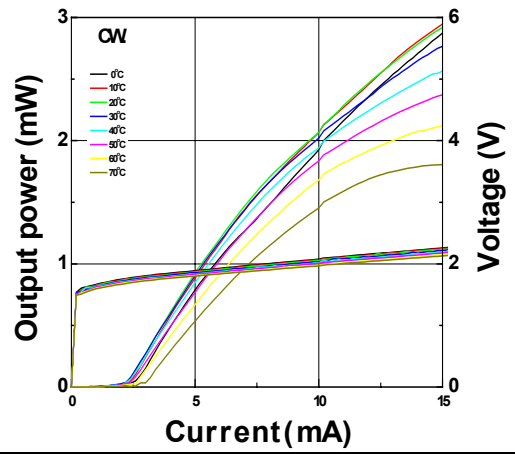
The VCSEL is a class IIIb laser and should be treated as a potential eye hazard. Due to the size of the component, the applicable warning logotype, aperture label, and certification / identification label cannot be placed on the component itself.

Characteristics Curves

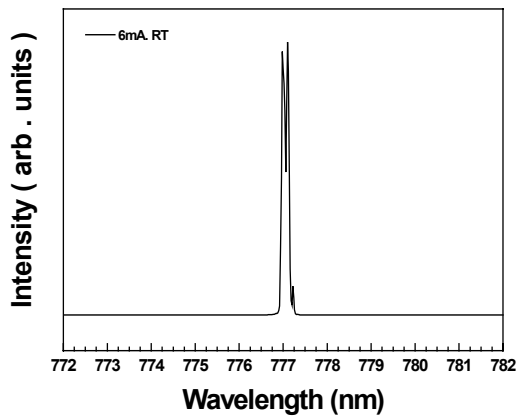
LIV Curve



LIV vs Temperature



EL Spectrum



I_{th} vs Temperature

