

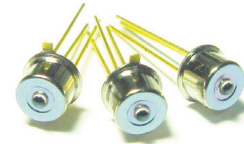
Features

- : 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

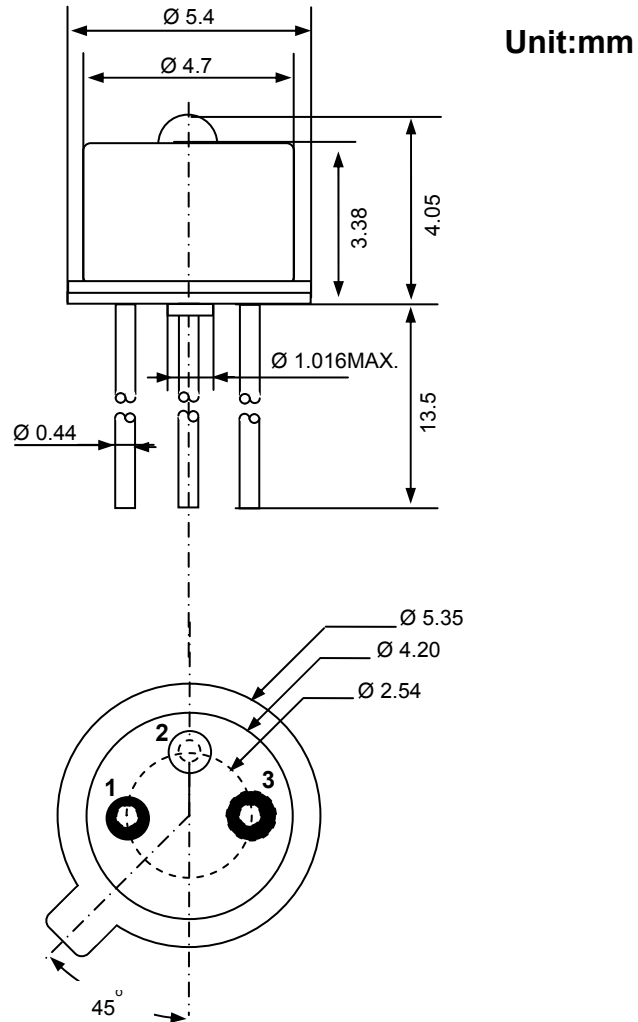
Description



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



PINOUT

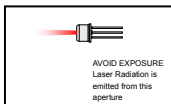
Number	PM78-B1P0N
1	LD Anode
2	NC
3	LD Cathode

Electro-Optics Characteristics (T_a=25°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 = 6mA
η Temperature Variation	Δη / ΔT		-0.5		%/ °C	T _a =0 to 70 °C at 6mA
Optical Output Power	P _o		1.5		mW	I _f = 6mA
Peak Wavelength	λ	770	780	790	nm	I _f = 6mA
λ Temperature Variation	Δλ / ΔT		0.06			T _a =0 to 70 °C at 6mA
Spectral Bandwidth (RMS)	Δλ			0.85	nm	I _f = 6mA
Operating Voltage	V _f		1.9	2.2	V	I _f = 6mA
Breakdown Voltage	V _b		-10		V	
Dynamic Resistance	R _d	25	35	55	Ohm	I _f = 6mA
Focal Length	F _D		2.5		mm	Distance from the lens surface

Notes

* These specifications are subject to change without notice



NOTICE

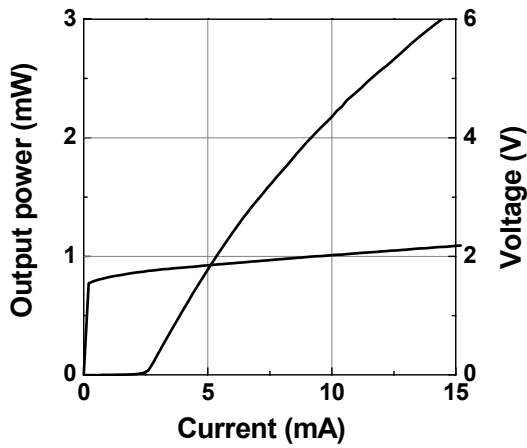
The inherent design of this component causes it to be sensitive to electrostatic discharge(ESD). To prevent ESD-induced damage and/or degradation to equipment, take normal ESD precautions when handling this product

DANGER

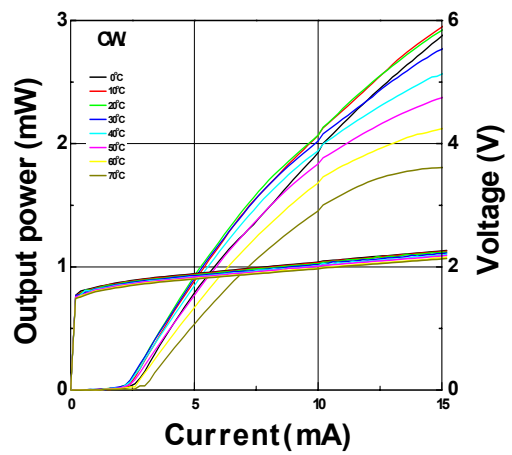
The VCSEL is a class IIIb laser and should be treated as a potential eye hazard. Due to the size of the component, the applicable warning logotype, aperture label, and certification / identification label cannot be placed on the component itself.

Characteristics Curves

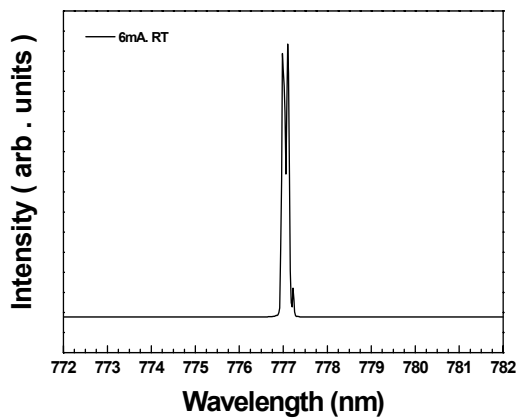
LIV Curve



LIV vs Temperature



EL Spectrum



I_{th} vs Temperature

