PS85-F1P0N

850nm Single mode VCSEL TO-46 Can Package

Features

: 850nm wavelength range

: High data rate > 2.5Gbps

: Single mode

: Symmetric emission profile

: Flat window type TO-46 Can package

:Other configurations available on request

Applications

: High speed Data Communications

: Gigabit Ethernet

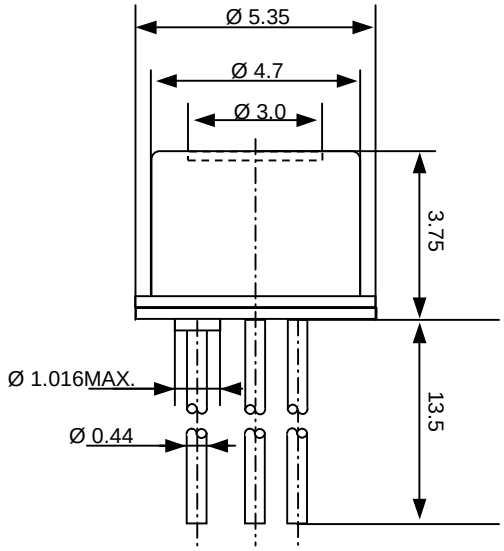
: Fiber Channel

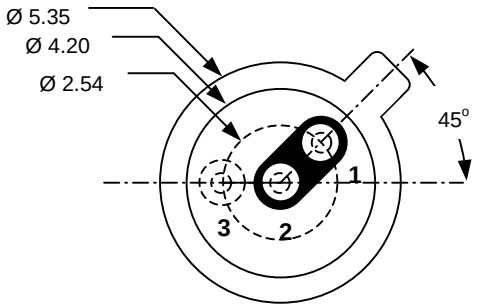
Description

Absolute Maximum Ratings

Parameter	Rating
Storage Temperature	-40 to 100 ^{o}C
Operating Temperature	0 to 70 ^{o}C
Lead Solder Temperature	260 ^{o}C, 10 sec
Continuous Forward Current	8mA
Continuous Reverse Voltage	5V (@10μA)

Dimensions





Bottom view

PINOUT

Number	Function
1	A_{LD}
2	K_{LD}
3	NC

Unit:mm

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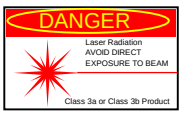
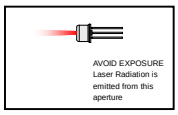
Electro-Optics Characteristics (T_a=25°C unless otherwise stated)

Parameters	Symbol	Specified			Unit	Test Conditions
		Min.	Typ.	Max.		
Threshold Current	I_{th}		2	4	mA	CW
I_{th} Temperature Variation	ΔI_{th}		1		mA	T_a=0 to 70 °C
Slope Efficiency	η		0.15	0.3	W/A	I_f = 5 mA
η Temperature Coefficient	Δη / ΔT		-0.5		%/ °C	T_a =0 to 70 °C at 5 mA
Optical Output Power	P_o		1		mW	I_f = 5 mA
Peak Wavelength	λ_P	840	850	860	nm	I_f = 5mA
λ_P Temperature Coefficient	Δ λ / ΔT		0.06			T_a =0 to 70 °C at 5mA
Spectral Bandwidth (RMS)	Δ λ			0.85	nm	I_f = 5mA
Beam Divergence	Θ		14		°	I_f = 5mA, (Full Width,1/e^2)
Forward Voltage	V_f		1.8	2.2	V	I_f = 5mA
Breakdown Voltage	V_b		-10		V	
Dynamic Resistance	R_d		50		Ohm	I_f = 5mA
Side mode suppression ratio	SMSR	15	25		dB	I_f = 5mA

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.

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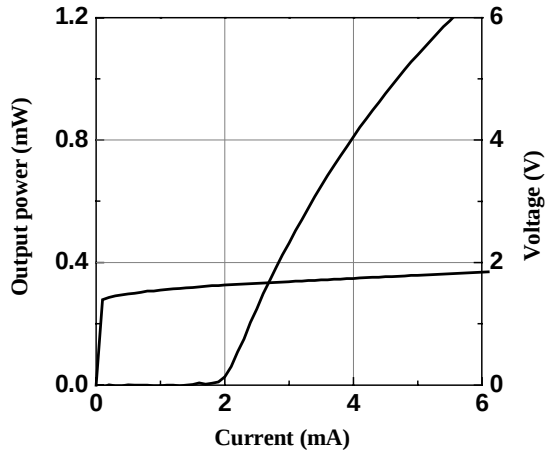
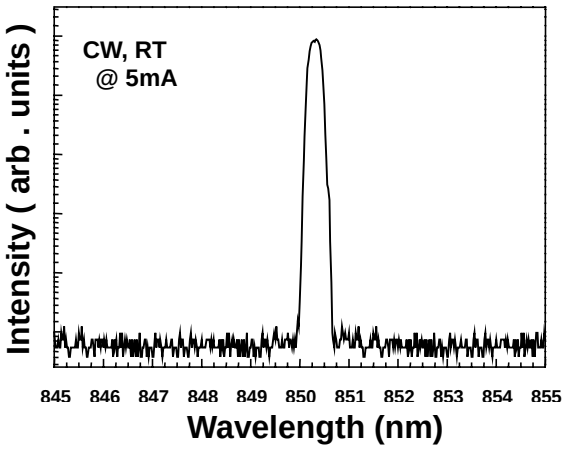
Characteristics Curves

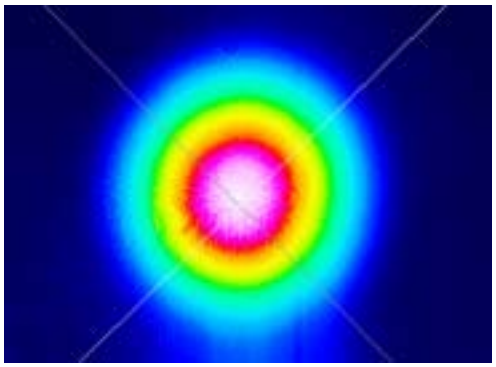
LIV Curve



EL Spectrum



FFP(2D)



FFP(3D)