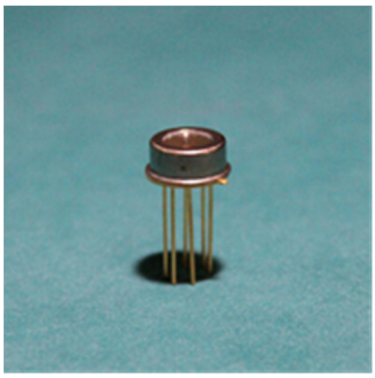
ADP-DFB- 1368-SM-TO39



Features

DISTRIBUTED FEEDBACK LASER

GaAs Semiconductor Laser Diode with quantum well structure

High-reliable fully hermetic package

Description

Product

1368nm DFB Laser with hermetic TO Package
Monitor Diode, Thermoelectric Cooler and Thermistor

Application

H_2O Detection
passive components manufacturing and testing

Absolute Maximum Ratings

parameter	symbol	type	unit
Forward Current	$I_{f(LD)}$	120	mA
Reverse Voltage	$V_{r(LD)}$	2	V
Monitor Diode Current	$I_{f(PD)}$	2	mA
Monitor Diode Reverse Voltage	$V_{r(PD)}$	20	V
TEC Current	I_{TEC}	0.7	A
TEC Voltage	V_{TEC}	1.1	V
Operational Temperature	T_{opr}	-20～+70	℃
Storage Temperature	T_{stg}	-40～+85	℃
Lead Soldering Temperature / Time	T_{sld}	260/10	℃/s

Characteristics at T_{case} = 25 °C at Begin Of Life

paramrter	symbol	Working condition	Min	Typ	Max	uint
Output Power	P_O	CW	3	5	–	mW
Threshold Current	Ith	CW	–	12	18	mA
Operational Current	Iop	CW, 5mW	–	–	80	mA
Operational Voltage	Vop	CW, 5mW	–	1.5	2.0	V
Slope Efficiency	η	CW, 5mW	0.05	0.1	–	mW/mA
Center Wavelength	λ p	CW, 5mW	1366	1368	1370	nm
Sidemode Supression Ratio	SMSR	CW, 5mW	35	–	–	dB
Spectral Width (20dB)	Δ λ	CW, 5mW	–	0.2		nm

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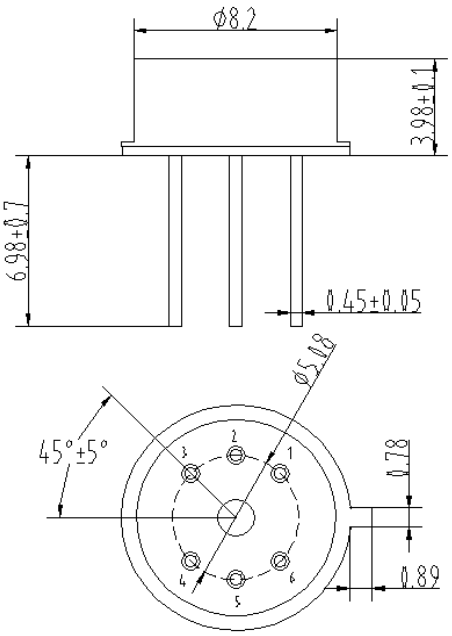
Temperature Coefficient of Wavelength	Δλ/T	Stable Current		0.1		nm/℃
Current Coefficient of Wavelength	Δλ/I	Stable Temperature		0.01		nm/mA
Thermistor	Rth	Ttherm = 25 °C	9.5	10	10.5	kΩ

Package Drawings and Pinout



1	TEC+
2	LD+
3	R
4	R
5	LD-
6	TEC-

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