

Preliminary Data Sheet

AC2420 Series

Uncooled 2.5 Gbps 1310 nm Distributed Feedback Laser (DFB) with Isolator in TOSA Package



reliability laser is suitable for applications up to 2.5 Gbps fiber optic links or local networks.

Features

- 1310 nm typical emission wavelength
- Integrated Optical Isolator
- High side-mode-suppression ratio (typical > 30 dB)
- High Reliability
- Multi-quantum Well (MQW) active layer

Description

The AC2420 series lasers are uncooled semiconductor InGaAsP Distributed Feedback (DFB) lasers working at 1310 nm wavelength. The device is delivered in hermetic TOSA package with an optical isolator and monitor photodiode. This high performance, and high

Applications

- Telecommunication
- Data Communication
- Storage area networks

Absolute Maximum Rating

Symbol	Parameter	Ratings	Unit
V_{RL}	Reverse Voltage (Laser diode)	2	V
I_{fL}	Forward current (Laser diode)	150	mA
V_{RD}	Reverse Voltage (Photodiode)	20	V
I_{fD}	Forward current (Photodiode)	2	mA
T_C	Case operating temperature	0 ~ +70	°C
T_{stg}	Storage temperature	-40 ~ +100	°C

Electrical/Optical Characteristics (T_c=25°C)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Threshold current	I _{th}	CW		9	15	mA
Optical Power	P _o	CW, I _f =I _{th} +20 mA, 25°C		2		mW
Operating voltage	V _{op}	CW, P _o = 2mW		1.2	1.5	V
Center Wavelength	λ _c	CW, P _o = 2mW	1290	1310	1330	nm
Side-mode-suppression ratio	SMSR	CW, P _o = 2mW	30			dB
Rise and fall time	T _r , T _f	I _f =I _{th} , P _o = 2mW, 20~80%		120	150	ps
Monitor current (Photodiode)	I _m	CW, P _o =2mW, V _{RD} =1V	0.1	0.5		mA
Dark current (Photodiode)	I _D	V _{RD} =10V		0.01	0.1	μA
Capacitance (Photodiode)	C _t	V _{RD} =10V, f=1MHz		10	20	pF
Optical Isolation			30			dB

Note: () applied to the lens-cap types (-A, -B and -F)

Ordering Information:**AC2420-W-YZ**

W= Pin-out Options (see outline drawing next page for details)

A = A-Type

B = B-Type

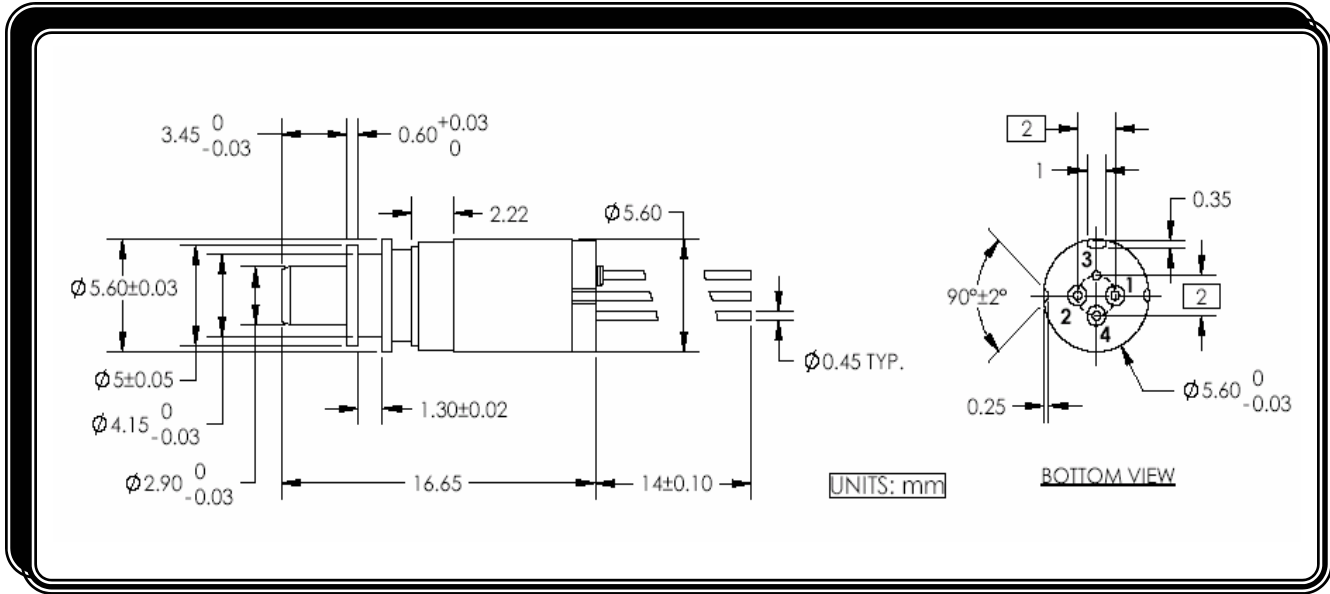
F = F-Type

YZ= Receptacle Type

L2 = LC Metal

S2 = SC Metal

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Pin-Out Options

