

1.55μm LD MODULE AF5A3102C50L/AF5A3102F50L

The AF5A3102C50L/AF5A3102F50L are 1.55μm laser diode modules designed for optical measurement and communication. The laser is packaged in a 14-pin butterfly package with optical isolator, monitor photodiode and thermo-electric cooler (TEC).

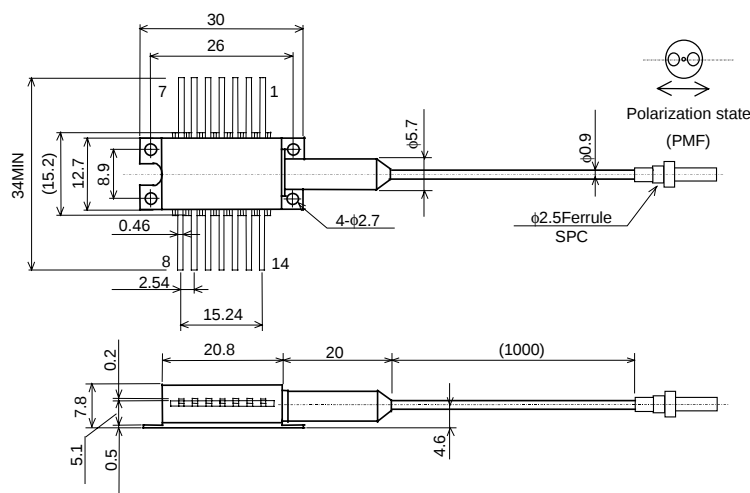
◆ FEATURES

- High optical output : 100mW/≤500mA
AF5A3102C50L
→SMF output (Nylon jacket fiber:φ0.9mm)
- AF5A3102F50L
→PMF output (Nylon jacket fiber:φ0.9mm)
- Built-in optical isolator
- Internal monitor PD and TEC

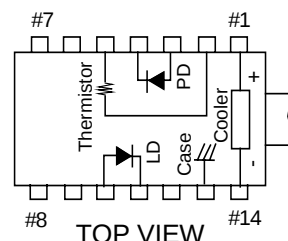
◆ ABSOLUTE MAXIMUM RATINGS (T_{LD}=25deg.C)

Item	Symbol	Rating	Unit
LD Forward Current	I _F	900	mA
LD Reverse Voltage	V _R	2	V
PD Forward Current	I _{FD}	10	mA
PD Reverse Voltage	V _{RD}	20	V
Operating Case Temperature	T _C	-20 to +70	deg.C
Storage Temperature	T _{stg}	-40 to +85	deg.C
Cooler Current	I _C	2	A

◆ DIMENSIONS



Package outline (Unit:mm)



TOP VIEW

No.	FUNCTION	No.	FUNCTION
1	Cooler anode	8	NC
2	Thermistor	9	NC
3	PD anode	10	LD anode
4	PD cathode	11	LD cathode
5	Thermistor	12	NC
6	NC	13	Case
7	NC	14	Cooler cathode

Pin Configuration

◆ OPTICAL AND ELECTRICAL CHARACTERISTICS (T_{LD}=25deg.C, T_C=25deg.C)

Item	Symbol	Test condition	Min.	Typ.	Max.	Unit
Forward Voltage	V _F	I _F =500mA		2.0	2.5	V
Threshold Current	I _{th}			30	60	mA
Optical Output Power	P _f	I _F =500mA	100			mW
Center Wavelength	λ _C	I _F =500mA, RMS(-20dB)	1535	1550	1565	nm
Spectral Width	σ	I _F =500mA, RMS(-20dB)		5	10	nm
Monitor Current	I _m	I _F =500mA, V _{RD} =5V	100	400		μA
PD Dark Current	I _d	V _{RD} =5V			0.1	μA
Tracking Error	ΔP _f	I _m =const, T _C =-20 to 70deg.C			0.5	dB
Cooler Voltage	V _c	I _F =600mA, T _C =70deg.C			3.2	V
Cooler Current	I _c	I _F =600mA, T _C =70deg.C			1.2	A
Thermistor Resistance	R _{th}	T _{LD} =25deg.C, B=3900±100K	9.5	10	10.5	kΩ
Optical Isolation	R _o	T _{LD} =25deg.C		30		dB

(Note) Polarization state of LD is aligned parallel to the slow axis.

Anritsu Corporation reserves the right to change the design or specification of the product at any time without notice.