

1.48μm LD MODULE AF4A1406A75L/AF4A1406E75L

The AF4A1406A75L/AF4A1406E75L are 1.48μm high power laser diode modules designed for Er doped fiber amplifier. The laser is packaged in a 14-pin butterfly package with optical isolator, monitor photodiode and thermo-electric cooler (TEC).

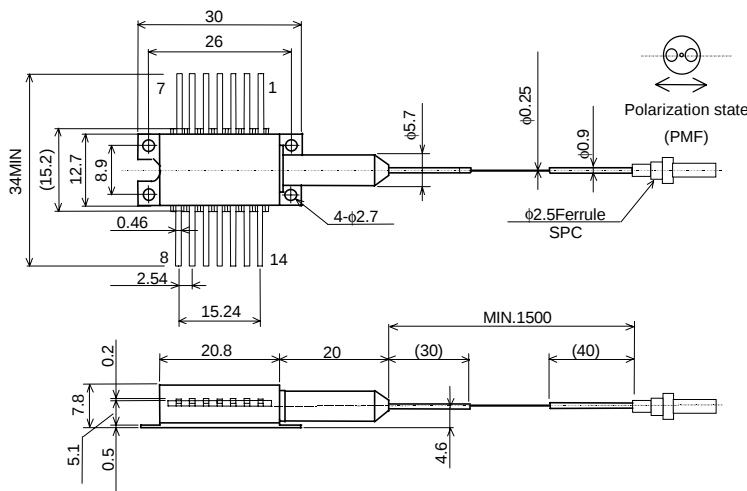
◆ FEATURES

- High optical output : 400mW/≤1400mA
AF4A1406A75L
→SMF output (UV coating fiber:φ0.25mm)
AF4A1406E75L
→PMF output (UV coating fiber:φ0.4mm)
- Built-in optical isolator
- Internal monitor PD and TEC

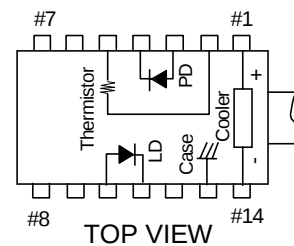
◆ ABSOLUTE MAXIMUM RATINGS (T_{LD}=25°C)

Item	Symbol	Rating	Unit
LD Forward Current	I _F	1700	mA
LD Reverse Voltage	V _R	2	V
PD Forward Current	I _{FD}	10	mA
PD Reverse Voltage	V _{RD}	10	V
Operating Case Temperature	T _C	-20 to +70	°C
Storage Temperature	T _{stg}	-40 to +85	°C
Cooler Current	I _C	5.8	A

◆ DIMENSIONS



Package outline(Unit:mm) Type:AF4A1406A75L



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}=25°C, T_C=25°C)

Item	Symbol	Test condition	Min.	Typ.	Max.	Unit
Forward Voltage	V _F	P _F =400mW			3.0	V
Threshold Current	I _{th}				50	mA
Forward Current (BOL)	I _F	P _F =400mW			1400	mA
Center Wavelength	λ _C	P _F =400mW, RMS(-20dB)	1460	1475	1490	nm
Spectral Width	σ	P _F =400mW, RMS(-20dB)		5	10	nm
Monitor Current	I _m	P _F =400mW, V _{RD} =5V	100		2000	μA
PD Dark Current	I _d	V _{RD} =5V			0.1	μA
Tracking Error	ΔP _f	I _m =const, T _C =-20 to 70°C			0.5	dB
Cooler Voltage	V _c	I _F =*EOL, T _C =70°C			3.3	V
Cooler Current	I _c	I _F =*EOL, T _C =70°C			3.8	A
Thermistor Resistance	R _{th}	T _{LD} =25°C, B=3900±100K	9.5	10	10.5	kΩ
Optical Isolation	R _o	T _{LD} =25°C		30		dB

(Note) *EOL=BOL X 1.2

(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.