AdTech optics 18007 Cortney Court, City of Industry, CA 91748 main: (626) 956-1000 fax: (626) 810-0259

AOF131AB:

1310 nm FP Laser Diode for FTTH PON

DESCRIPTION

AOF131AB is an uncooled 1310 nm Fabry-Perot laser diode packaged in TO-56 with a ball lens and an output power monitoring photo diode. The excellent high temperature behavior makes it suitable for FTTH PON (Fiber To The Home Passive Optical Network) systems.

FEATURES

- Low threshold current and low operating current
- Wide temperature range operation (-40 to 85 °C)

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Rating	Unit
Optical output power	P_o	15	mW
LD forward current	I_{fl}	150	mA
LD reverse voltage	V_{rl}	2	V
PD reverse voltage	V_{rp}	20	V
PD forward current	I_{fp}	10	mA
Operating temperature	T_o	-40 to 85	°C
Storage temperature	T_s	-40 to 100	°C

OPTICAL AND ELECTRICAL CHARACTERISTICS

(CW at To = 25 °C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Threshold current	I_{th}	—	7	15	mA	—
Slope efficiency	_	0.3	0.4	—	W/A	P_o = 5 mW
Operating current	I_{op}	—	21	50	mA	P_o = 5 mW
Operating voltage	V_{op}	—	1.1	1.8	V	P_o = 5 mW
Lasing wavelength	_	1290	1310	1330	nm	P_o = 5 mW
Spectral Width (RMS)	_	—	1.4	2.5	nm	P_o = 5 mW
Rise time	t_r	—	100	300	psec	10% - 90%
Fall time	t_f	—	100	300	psec	90% - 10%
Monitor current	I_m	50	200	600	µA	P_o = 5 mW
Dark current	I_d	—	—	20	µA	V_{rp} = 5 V
Capacitance	C_t	—	10	20	pF	V_{rp} = 5 V, f = 1MHz

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TYPICAL CHARACTERISTICS

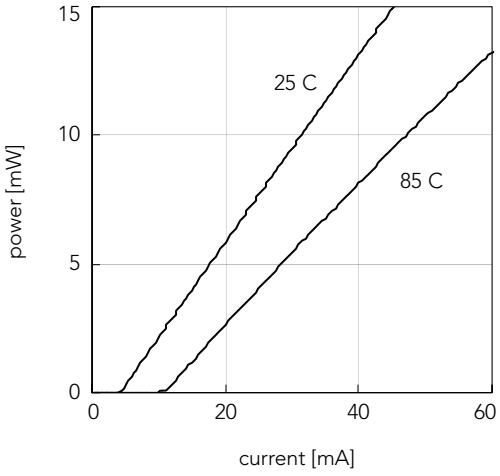

Fig. 1 Power vs. current

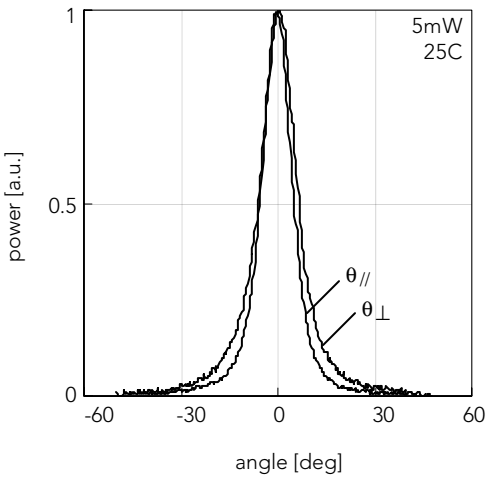

Fig. 2 Far field pattern

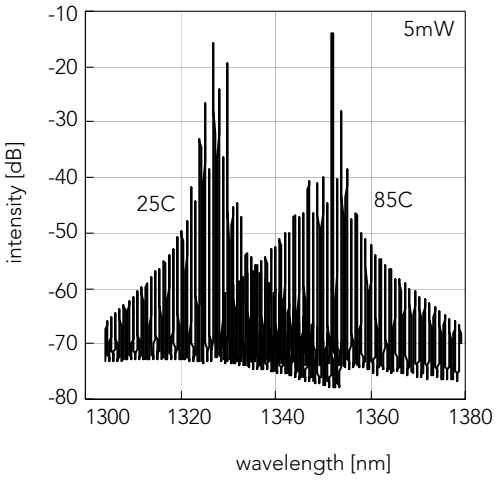

Fig. 3 Lasing spectrum

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LD: AOF131AB
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OUTLINE DRAWING