

1.65 μ m DFB LD MODULE AB6B407BJ537F

The AB6B407BJ537F is 1.65 μ m InGaAsP/InP distributed feedback (DFB) laser diode developed as a light source for methane sensing.

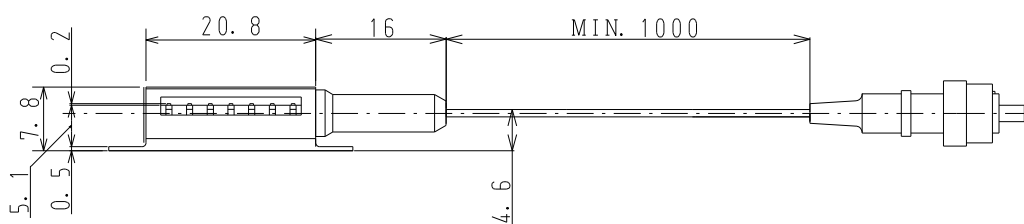
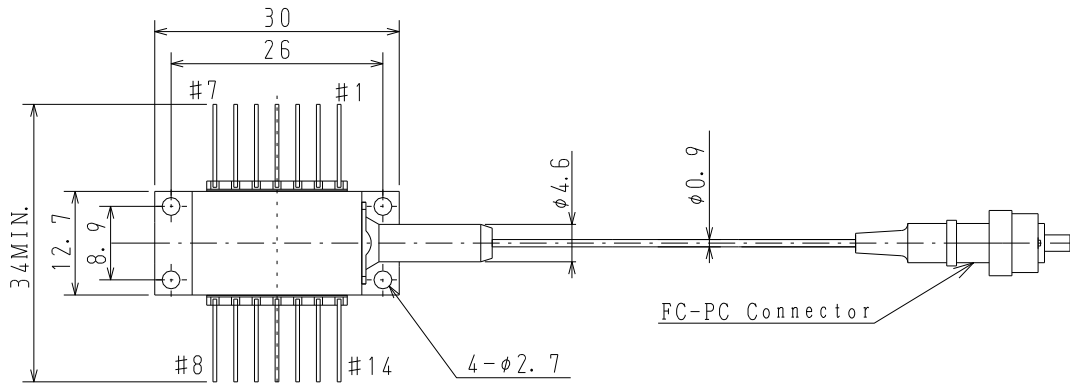
◆ FEATURES

- Optical output power: Typ.10mW@100mA
- Built-in optical isolator (30dB)
- Internal monitor PD and TEC
- SMF pigtail type (FC/PC connector)

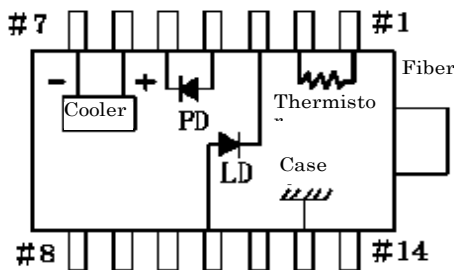
◆ ABSOLUTE MAXIMUM RATINGS (T_{LD}=25°C)

Item	Symbol	Rating	Unit
LD Forward Current	I _F	150	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	2	A

◆ DIMENSIONS



TOP VIEW



PIN CONFIGURATIONS

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

◆ **OPTICAL AND ELECTRICAL CHARACTERISTICS** ($T_{LD}=25^{\circ}C$, $T_C=25^{\circ}C$)

Item	Symbol	Test condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F=100mA$			2.5	V
Threshold Current	I_{th}			10	25	mA
Optical Output Power	P_f	$I_F=100mA$	7	10		mW
Peak Wavelength *1	λ_P	$I_F=100mA$	1652.7	1653.7	1654.7	nm
Side Mode Suppression Ratio	SMSR	$I_F=100mA$	33	40		dB
Spectral Linewidth	Δf	$I_F=100mA$		3	15	MHz
PD Dark Current	I_d	$V_{RD}=5V$			0.1	μA
Tracking Error	ΔP_f	$I_m=const$, $T_C=-20$ to $70^{\circ}C$			0.5	dB
Cooler Voltage	V_c	$I_F=100mA$, $T_C=70^{\circ}C$			2.5	V
Cooler Current	I_c	$I_F=100mA$, $T_C=70^{\circ}C$			1.0	A
Thermistor Resistance	R_{th}	$T_{LD}=25^{\circ}C$, $B=3900\pm 100K$	9.5	10	10.5	k Ω



CAUTION : Handle the fiber of the enclosed device(s) with extreme care ; glass fiber is subject to breakage if mishandled and permanent damage to the device may result. Do not pull the device by the fiber or protective sleeve. Do not coil the fiber into a loop of than 30 mm in radius.

SEMICONDUCTOR LASER

INVISIBLE LASER RADIATION
AVOID DIRECT EXPOSURE TO BEAM

OUTPUT POWER 50mW
WAVELENGTH 1.10 to 1.80 μm
CLASS IIIb LASER PRODUCT

AVOID EXPOSURE
Invisible laser radiation is emitted from this aperture

Caution – use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
This Product Complies with 21 CFR 1040.10 and 1040.11
Manufactured Anritsu Corp. 5-1-1 Onna, Atsugi-shi, Kanagawa, Japan

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