

1064nm DFB Laser Diode Module

1. Description:

The BFLD-1064-60PM-FA 1064nm laser module utilizes a planar construction with chip on subcarrier. The high power chip is hermetically sealed in a epoxy-free and flux-free 14-pin butterfly package and fitted with a thermistor, thermoelectric cooler, and monitor diode.

The BFLD-1064-60PM-FA 1064nm laser provides a noise-free narrowband spectrum, even under changes in temperature, drive current, and optical feedback. Wavelength selection is available for applications that require the highest performance in spectrum control with the highest available powers. This module complies described in Telcordia GR-468-CORE requirement.

2. Features:

- Stabilized wavelength single mode laser;
- CW or pulsed operation;
- Operating temperature range -40°C to $+50^{\circ}\text{C}$;
- Wavelength/temperature coefficient $0.01\text{nm}/^{\circ}\text{C}$;
- Built-in monitor photodiode, thermo-electric cooler and thermistor;
- Single mode fiber pigtail (Corning HI1060, NA=0.14, MFD=6.2um@1060nm);
- Optional FC/APC connector.

3. Applications:

- Spectroscopy;
- Telecom;
- Illumination;
- Sensing.

4. Electro-Optical Characteristics(25°C laser temperature):

Parameter	Symbol	Min	Typical	Max	Unit
Output power from pigtail	P_F	60	70		mW
Range of available wavelengths	λ_c	1061		1065	nm
Spectral width (FWHM)				3	MHz
Sidemode supression ratio at P_f	SMSR	40	45		dB
Wavelength shift with current			3	5	pm/mA
Wavelength shift with temperature			0.08	0.1	nm/ $^{\circ}\text{C}$
Operating current	I_{OP}		180	200	mA
Threshold current	I_{TH}		22	30	mA
Forward voltage	V_F		2	2.3	V
Polarization extinction ratio	PER	15	20		dB
Thermoelectric cooler current	I_{TEC}			3	A
Thermoelectric cooler voltage	V_{TEC}			4	V

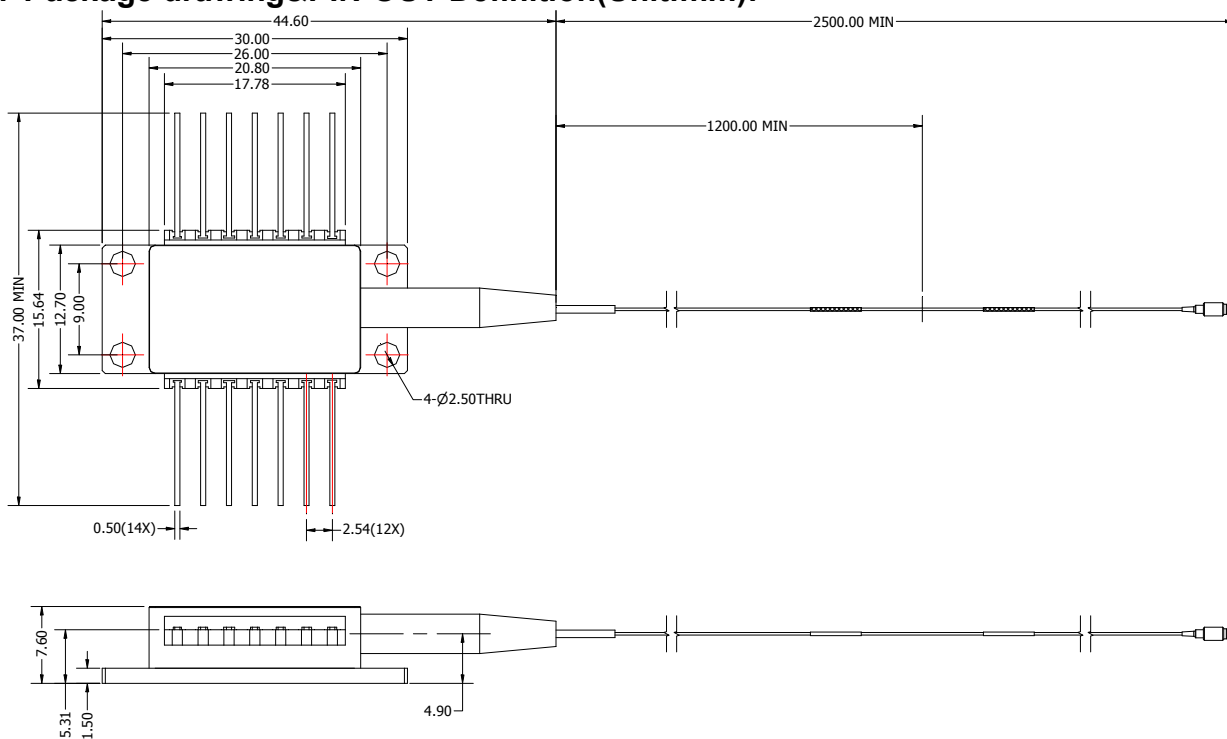
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Chip operating temperature range	T _{OP}	15	25	40	°C
Case operating temperature range	T _C	10	25	50	°C
Storage temperature	T _S	5		80	°C

5. Optical Fiber Specifications:

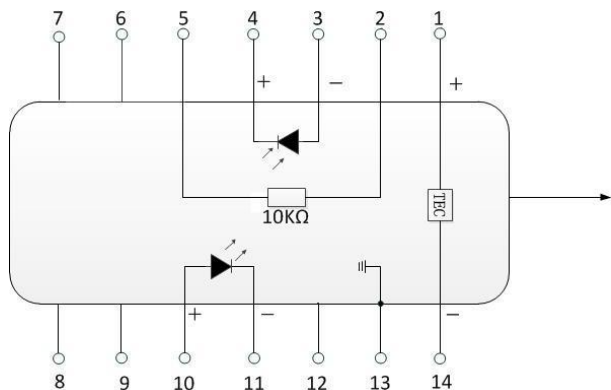
Parameters	Description
Fiber type	Hi1060 fiber or PM fiber
Pigtail type	Bare fiber
Pigtail length	1.5±0.1m
Connector type	Without

6. Package drawing&PIN-OUT Definition(Unit:mm):



DIMENSION: MM

GENERAL TOLERANCE: ± 0.1



PIN	Description	PIN	Description
1	TEC(+)	14	TEC(-)
2	Thermistor	13	Case Ground
3	PD Anode	12	NC
4	PD Cathode	11	LD Cathode
5	Thermistor	10	LD Anode
6	NC	9	NC
7	NC	8	NC