

EX-9605-65-BF

1650nmDFB High Power Pulsed Laser Module01-12-14 REV 011

Description

The **EX-9605-65-BF** series is a 1.65 μ m buried heterostructure (BH) InGaAsP/InP MQW-DFB(Distributed Feedback) laser diode entirely fabricated by MOVPE. It features a built-in optical isolator and TEC. It is housed in a 14-pin Butterfly package.

Key features

- ☐ Multiple Quantum Well (MQW) Distributed Feedback (DFB)
- ☐ Built-in optical isolator
- ☐ Internal thermoelectric cooler, thermistor
- ☐ Comply Bellcore 468 specifications
- ☐ Single mode fiber

Applications

- ☐ CH₄ Sensing/OTDR

Absolute Maximum Rating:

Parameter	Symbol	Condition	Min	Max	Unit
Operating Case Temperature	T _c	I=I _{op}	-20	70	°C
Storage Temperature	T _{stg}	--	-20	85	°C
Laser Forward Current	I _{f(cw)}	--	--	170	mA
Laser Reverse Bias	V _r	--	--	2	V
Photodiode Reverse Bias	V _{ipd}	--	--	10	V
Pulsed Forward Current*	I _{fp}	--	--	500	mA
TEC Current	I _{TEC}	--	--	1.5	A
TEC Voltage	V _{TEC}	--	--	4.0	V
Lead Soldering Temperature		--	--	250	°C
Lead Soldering Time		--	--	10	S

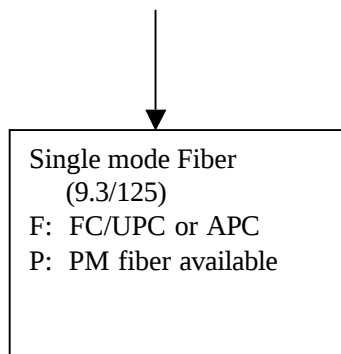
Note: *1 Pulse conditions: Pulse width (PW) = 10 μ s, Duty = 1%

Electro-Optical Characteristics Tested under $T_c=25^\circ\text{C}$

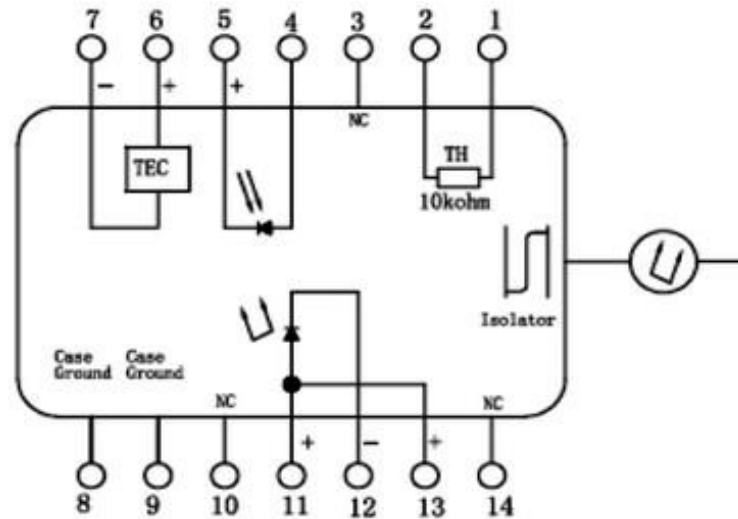
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Threshold Current	I_{th}	25°C	-	15	30	mA
Output Power	P_f	$I_{FP} = 450$ mA, $P_W = 10$ μs , Duty = 1%	50	-		mW
		CW(for CH4)	5	-		
Center Wavelength	λ_c	$I=I_{op}$ For CH4	1640	1650	1660	nm
			1652	1654	1655	
Side-mode Suppression ratio	SMSR	$I=I_{op}$	30	40	-	dB
Monitor Current response	I_m/P_{LD}	-	10		200	$\mu\text{A/mW}$
Thermistor Resistance			9.5	10	10.5	KOhm
Optical Isolation	ISO	-	20	30	-	dB

Ordering Options:

EX-9605-65-BF-X

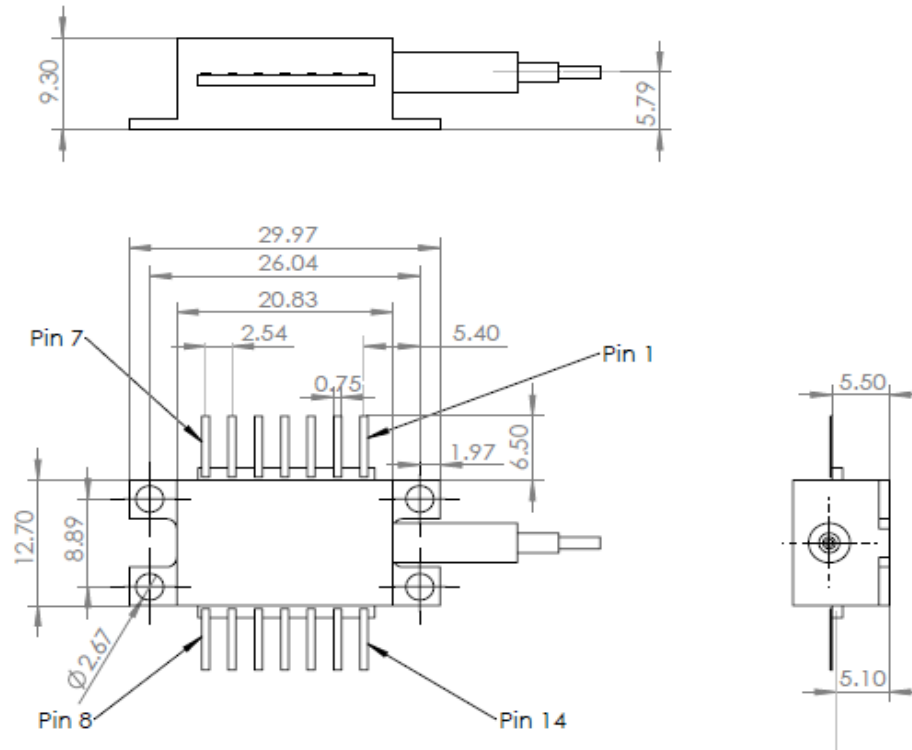


Electric Schematics

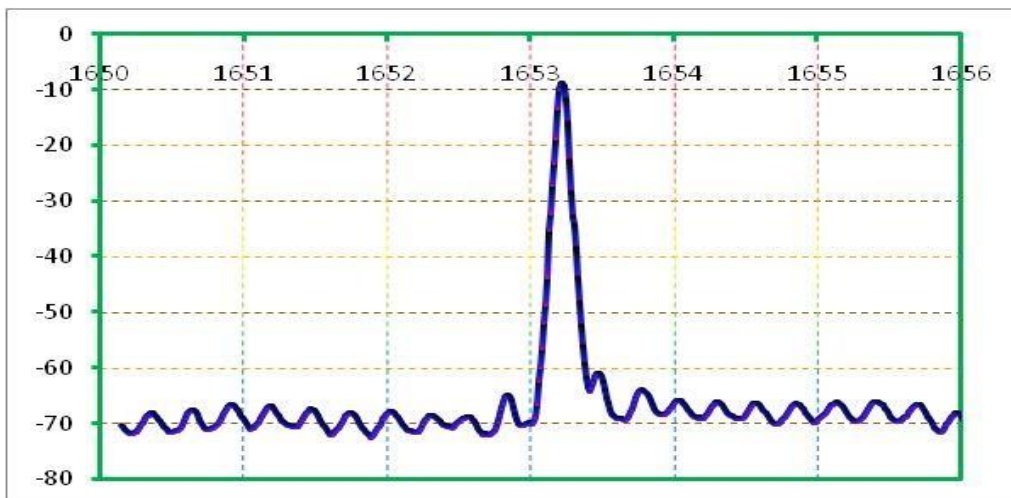


PIN	Connection
1	Thermistor
2	Thermistor
12	LD Cathode (-)
4	PD Anode (+)
5	PD Anode (-)
6	TE Cooler (+)
7	TE Cooler (-)
11,13	LD Anode (+)

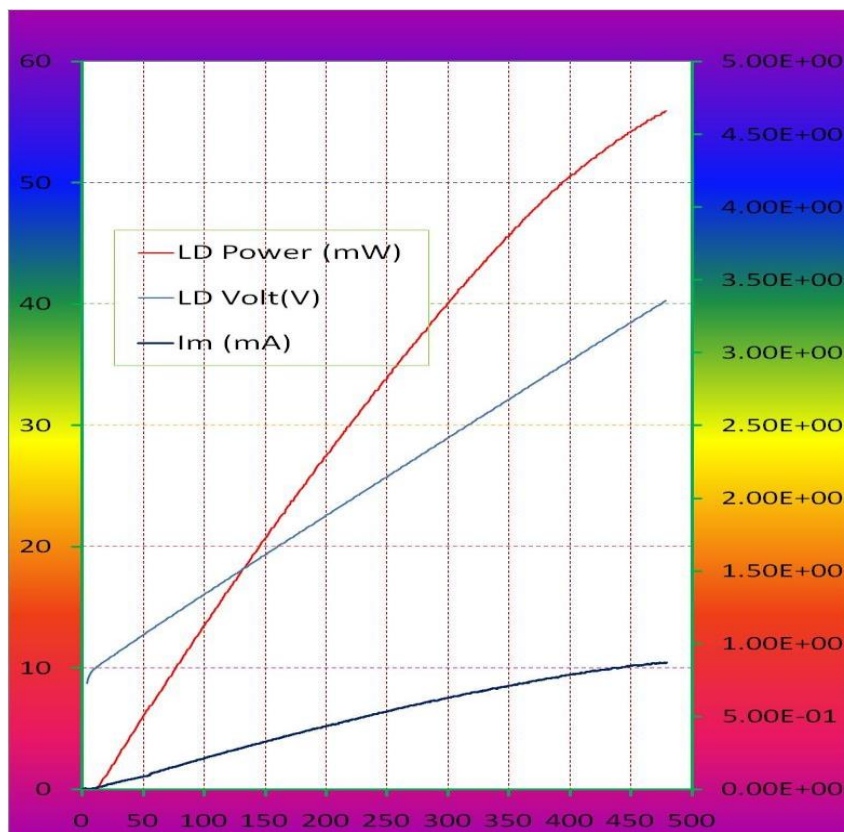
Outline Drawing (unit: mm)



Typical Spectrum curve



Typical LIV curve



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