



LAN-WDM DFB Butterfly Laser Module (14 pins)

Features

- High Linearity Direct Modulation DFB laser
- High Output Power
- Built -in Isolator , TEC, Thermistor and Monitor PD
- Hermetically Sealed 14 Pin Butterfly Package
- RoHs Compliant

Application

- Long Reach Analog Transmission Systems
- Light Source
- Sensor
- Point-to-point Communication
- Test equipment

Absolute Maximum Ratings (Tc=25°C .unless otherwise specified)

Parameter	Symbol	Min.	Max.	Unit	Test Condition
Laser Chip	I_{FL}	-	1200	mA	Forward Current
	I_{RL}	-	2	mA	Reverse Current
Reverse Voltage (Laser diode)	V_{RL}	-	2	V	Reverse Current <500uA
Storage Temperature	Tstg	-40	+100	°C	-
Soldering Temperature/Time	-	260/10		°C/S	-

Relative Humidity	R_H	-	95	%	Top < 30 °C
Thermal Electric Cooler	-	-	2	V	Voltage
	-	-	1.5	A	Current
Fiber Yield Strength	-	-	30	nm	-
Fiber Bend Radius	-	-	1	kgf	-
Monitor Detector	V_{RD}	-	15	V	Reverse Voltage
	I_{RD}	-	1	mA	Reverse Photo Current
	I_{FD}	-	2	mA	Forward Current

Operating Conditions

Parameter	Symbol	Min	Typ.	Max.	Unit	Test Conditions
Caser Operating Temperature Range	T_C	- 20	-	60	°C	-
Power Supply Voltage	V_{CC}	-	-	5	V	-
Relative Humidity	R_H	-	-	80	%	-
Bias Current	I_D	-	-	70	mA	-

TEC Cooler Current	I _{cooler}	-	-	1	A	ΔT=40K
TEC Voltage	V _{cooler}	-	-	2	V	ΔT=40K

Specifications (electrical & optical characteristics)

Parameter	Symbol	Min	Typ.	Max.	Unit	Test Conditions
Operating Voltage	V _{op}	-	-	1.8	V	CW
Threshold Current	I _{th}	-	10	45	mA	CW
Thermistor	R _{th}	9.5	10	10.5	KΩ	25 °C
Thermoelectric cooler current	I _{cooler}	-	-	1000	mA	CW, -5 °C ~ 60 °C
Monitor Current	I _m	10	-	150	uA	CW, V _{rd} = 5V
Monitor Dark Current	I _d	-	-	500	nA	CW, V _{rd} = 5V
Central Wavelength	λ _L	λ _{L-1}	λ _L	λ _{L+1}	nm	CW, 25 °C
	1269.23 /1273.54 /1277.89 /1282.26 /1286.66 /1295.1 /1295.56 /1300.05 /1304.58 /1309.14 /1313.73 /1332.41					

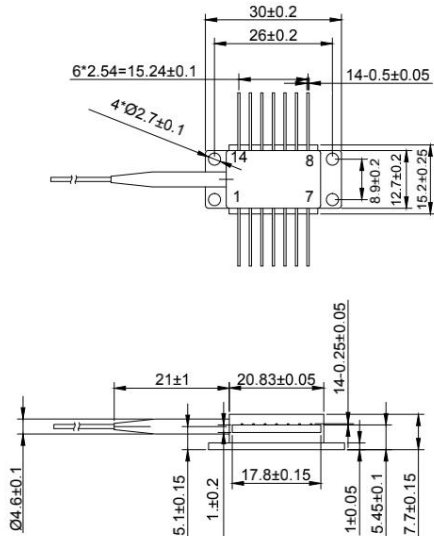
Side Mode Suppression Ratio	SMSR	30	50	-	dB	CW, If = Ith + 20 mA
Output Power	Po	1	-	20	mW	CW
Slope Efficiency	Se	-	0.3	-	mW/mA	CW
Spectral Width	$\Delta \lambda$	-	-	0.3	nm	CW, - 20dB
Bias Current	I _B	-	-	70	mA	-
Tracking Error	ΔPf	-	-	0.5	dB	CW, -5 °C ~ 60 °C, Im =Im @25 °C
Monitor PD Capacitance	C	-	-	0.5	pF	Vrd = 5 V, F = 1 MHz
Connector Repeatability		-	-	0.3	dB	CW
Frequency Range	F	45	-	1000	MHz	-
Tracking Error	Er	-	-	1	dB	Tc = - 20 ~ 65 °C, APC, ATC
Rise Time / Fall Time	Tr / Tf	-	-	2.0	ns	10-90% / 90-10%

* CWDM DFB wavelength tolerance + - 3nm.

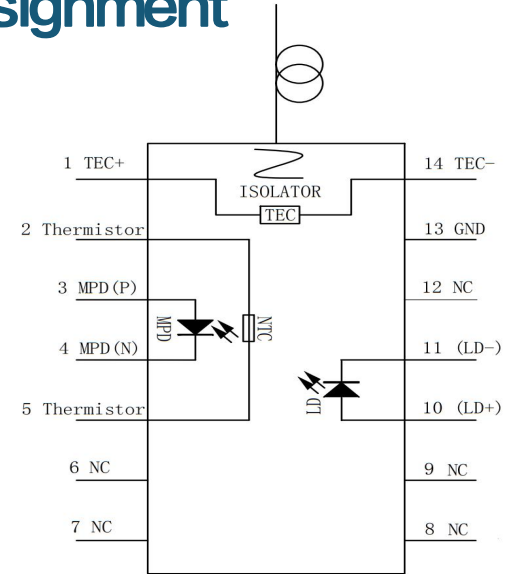
* LAN-WDM , MWDM ,DWDM wavelength tolerance belongs to their specific properties.

* 1625nm . 1650nm. 1654nm wavelength tolerance + - 5nm.

Dimensions(nm)



Pin Assignment



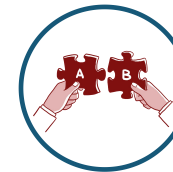
Order Information

GTA9090



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