



LWDM DFB Butterfly Laser Module (14 pins)

GTA9090

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
Optical point-to-point Communication
Test equipment



1 Absolution Maximun Ratings (Tc=25°C.unless otherwise specified)

Parameters	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	RH	-	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	ReversePhoto Current
	I_{FD}	-	2	mA	Forward Current

2 Operating Conditions

Parameters	Symbol	Min.	Max.	Unit	Test Condition
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	Icooler	-	1	A	$\Delta T=40K$
TEC Voltage	Vcooler	-	2	V	$\Delta T=40K$

3 Specifications (electrical & optical characteristics)

Parameters	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Operating Voltage	V_{op}	-	-	3	V	CW
Threshold Current	I_{th}	-	10	45	mA	CW
Thermistor	R_{th}	9.5	10	10.5	K Ω	25 °C
Monitor Current	I_m	10	-	150	uA	CW, Vrd = 5V





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Parameters	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Thermoelectric cooler current	Icooler	-	-	1000	mA	CW, -5 °C ~ 60 °C
Monitor Dark Current	Id	-	-	500	nA	CW, Vrd = 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					
Output Power	Po	1	-	20	mW	CW
Side Mode Suppression Ratio	SMSR	30	-	-	dB	CW, If = Ith + 20 mA
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	Δ Pf	-	-	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
Tracking Error	Er	-	-	1	dB	Tc = - 20 ~ 65 °C , APC, ATC
Rise Time / Fall Time	Tr / Tf	-	-	2.0	ns	10-90% / 90-10%

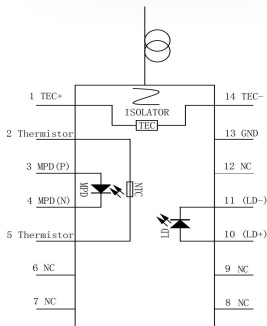
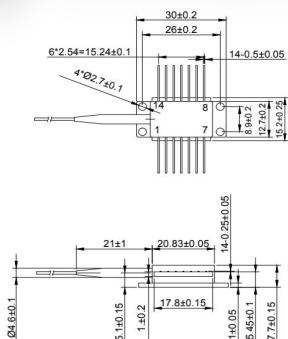
* CWDM DFB wavelength tolerance $\pm 3\text{nm}$.

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

* 1625nm.1650nm.1654nm wavelength tolerance $\pm 5\text{nm}$.

4 Dimensions(mm)

Pin Assignment



 Please let us know your request details before order.
** If you have your own Pin Assignment request .
Kindly share it with us before order .



Customize for you



5 Order Information

GTA9090 series laser **LWDM DFB butterfly laser module**

Please let us know

- 1: wavelength
- 2: output power
- 3: fiber type
- 4: connector
- 5: pin map (If you have your own request, please let us know it.)
- 6: with isolator or not

For example

GTA9092699

1269.23nm DFB butterfly laser module 10mW.
SMF FC/APC 1m, with isolator.

