



1550nm DFB Narrow linewidth Butterfly Laser Module (14 pins)

Features

- High Linearity Direct Modulation DFB laser
- High Output Power ,Wavelengths (1544~1555nm)
- Built -in Isolator , TEC, Thermistor and Monitor PD
- Hermetically Sealed 14 Pin Butterfly Package
- RoHs Compliant

Application

- Telecommunication
- Data Communication
- Storage Area Network
- PON

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	T _{stg}	-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	Icooler	-	-	2.4	A	$\Delta T=40K$
TEC Voltage	Vcooler	-	-	2.9	V	$\Delta T=40K$

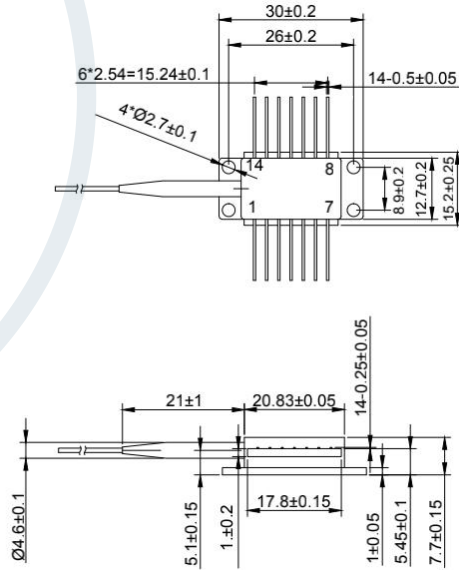
Specifications (electrical & optical characteristics)

Parameter	Symbol	Min	Typ.	Max.	Unit	Test Conditions
Operating Voltage	Vop	-	1.2	1.5	V	CW, I _{th} + 20mA
		-	2.5	3.5		CW, I _{th} + 400mA , TEC
Threshold Current	I _{th}	-	20	45	mA	CW , 25 °C
Thermistor	Rth	9.5	10	10.5	K Ω	25 °C
Thermoelectric Cooler Current	Icooler	-	-	1000	mA	CW, -5 °C ~ 60 °C
Thermoelectric Cooler Voltage	Vcooler	-	-	1.5	V	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

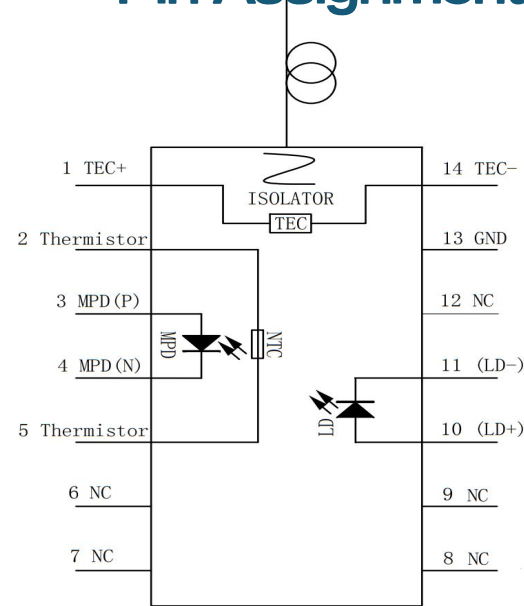


Central Wavelength	λ_c	1544	1550	1555	nm	CW, 25 °C
Output Power	P_o	4	-	6	mW	CW, I _{th} + 20 mA
		40	-	60		CW, I _{th} + 400 mA , TEC
		60	-	100		CW, I _{op} <1000 mA , TEC
Side Mode Suppression Ratio	SMSR	30	50	-	dB	CW, I _f = I _{th} + 20 mA
Bias Current	I _B	-	-	70	mA	-
Linewidth	L _w	-	200	-	KHz	CW, I _{th} + 300 mA, TEC
Relative Intensity Noise	R _{in}	-	-166	-155	dB /Hz	CW, I _{th} + 300 mA, TEC @1GHz
Tracking Error	ΔP_f	-	-	0.5	dB	CW, -5 °C ~ 60 °C, I _m = I _m @25 °C
Monitor PD Capacitance	C	-	-	0.5	pF	V _{rd} = 5 V, F = 1 MHz
Connector Repeatability		-	-	0.3	dB	CW
Frequency Range	F	45	-	1000	MHz	-
Tracking Error	E _r	-	-	1	dB	T _c = - 20 ~ 65 °C, APC, ATC
Rise Time / Fall Time	Tr / Tf	-	-	2.0	ns	10-90% / 90-10%

Dimensions(nm)



Pin Assignment



Order Information

GTA9014 series laser

Narrow line width DFB butterfly laser module
Please let us know

- 1: output power
- 2: fiber type
- 3: connector
- 4: pin map (if you have your own request)
- 5: with isolator or not



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

