



850nm DFB Butterfly Laser Module (14 pins)

Features

- DBR Single-Frequency Laser Chip
- InGaAs QW Active Layer
- Built -in TEC, Thermistor and Monitor PD
- Hermetically Sealed 14 Pin Butterfly Package
- RoHs Compliant

Application

- Light Source
- Sensor
- Optical Communication
- Test equipment
- Atomic Spectroscopy for cesium

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

Parameter	Symbol	Min.	Max.	Unit	Test Condition
Laser Chip (CW)	I _{FL}	-	200	mA	Forward Current
	V _{RD}	-	0	V	Reverse Voltage
Storage Temperature	T _{stg}	0	80	°C	-
Operating Temperature	T _{op}	5	70	°C	-
Soldering Temperature/Time	-	260/10		°C/S	-



Monitor Detector	V_{RD}	-	20	V	Reverse Voltage
	I_P	-	5	mA	Forward Current
	I_D	-	50	nA	Dark Current $V_{RD}=10V, LD I_F=0$
TEC Current	I_{TEC}	-2.5	2.5	A	
TEC Voltage	V_{TEC}	-6.0	6.0	mA	
Thermistor Current	I_{THRM}	-	1.0	mA	
Thermistor Voltage	V_{THRM}	-	10	V	
ESD (HBM)	-	-	500	V	
External Back Reflection	-	-	-14	dB	

Specifications (electrical & optical characteristics , $T_c=25^{\circ}C$.unless otherwise specified)

Parameter	Symbol	Min	Typ.	Max.	Unit	Test Conditions
Central Wavelength	λ_c	850	852	854	nm	CW, 25 °C
Output Power	P_o	1	-	10	mW	CW,25 °C



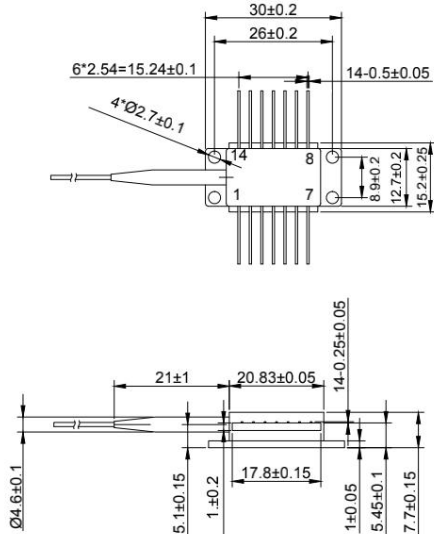
Threshold Current	I_{th}	-	40	50	mA	CW
Thermistor Resistance	R_{th}	-	10	-	K Ω	25 °C
Laser Series Resistance	R_s	-	2.5	3.5	Ω	-
Laser forward Voltage	V_F	-	2.0	2.5	V	-
Slope Efficiency	ηd	0.3	0.36	-	W/A	CW
Slope Efficiency	ηd	0.6	0.72	-	W/A	CW
Monitor Dark Current	I_d	-	-	50	nA	CW, $V_r = 10V$, LD $I_f=0$
Beam Divergence @FWHM	$\theta_{ } \times \theta_{\perp}$	-	6X32	8X34	°	
Side Mode Suppression Ratio	SMSR	30	-	-	dB	CW, $I_f = I_{th} + 20 \text{ mA}$
Polarization Extinction Ratio	PER	15	-	-	dB	

* CWDM DFB wavelength tolerance + - 3nm.

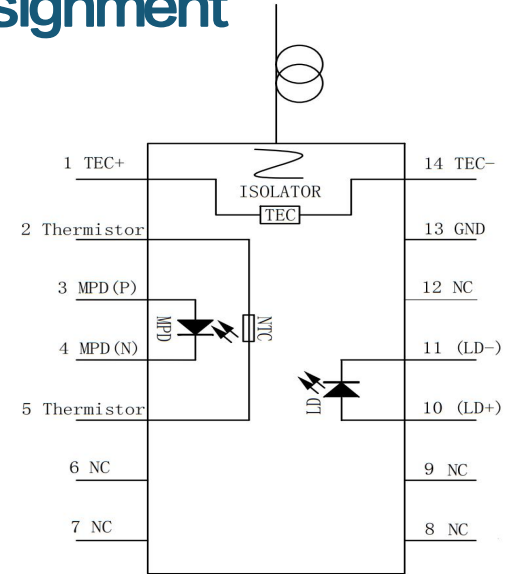
* LAN-WDM , MWDM ,DWDM wavelength tolerance belongs to their specific properties.

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

Dimensions(nm)



Pin Assignment



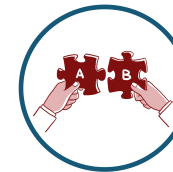
Order Information

GTA9046



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