

★ 1650nm DFB Pulsed cooled (DIL) (14 pins)

GTC9040

Features

- High Output Power ~100mW
- Built-in Isolator,TEC, Thermistor and Monitor PD
- Hermetically Sealed 14 Pins DIL Package
- Pulse Width (PW) =10μs,Duty=1%
- RoHs Compliant

Application

- Long Reach Analog Transmission Systems
- Light Source
- Sensor
- Optical Communication
- OTDR



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	T _{stg}	-40	+100	℃	-
Soldering Temperature/Time	-	260/10		℃/S	-
Relative Humidity	RH	-	95	%	Top < 30 ℃
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	℃	-
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

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	KΩ	25 ℃
Monitor Current	I _m	10	-	150	uA	CW, V _{rd} = 5V



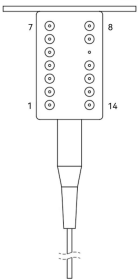
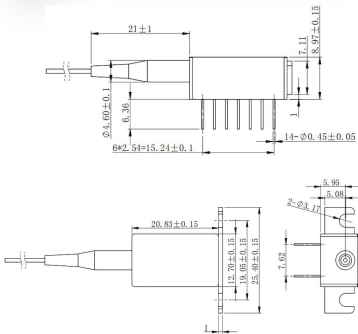
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Parameters	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Thermoelectric cooler current	Icooler	-	-	1000	mA	CW, -5℃ ~ 60℃
Monitor Dark Current	Id	-	-	500	nA	CW, Vrd = 5V
Central Wavelength	λ_c	1645	1650	1655	nm	CW, 25℃
Output Power	Po	100	-	-	mW	Iop=1000mA @10μs, duty=1%
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	IB	-	-	70	mA	-
Tracking Error	ΔP_f	-	-	0.5	dB	CW,-5℃ ~ 60℃ , Im =Im @25℃
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℃ , 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.

4 Dimensions(mm) Pin Assignment



Pin	Function	Pin	Function
1	TEC(+)	8	NC
2	NC	9	LD(-)
3	NC	10	LD(+),Ground
4	NC	11	Thermistor
5	LD(+),Ground	12	Thermistor
6	NC	13	NC
7	NC	14	TEC(-)

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



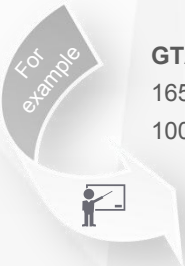
Customize for you



5 Order Information

GTC9040 series laser 1650nm DFB Pulsed cooled (DIL)

- Please let us know
- 1:output power
 - 2: fiber type
 - 3: connector
 - 4: pin map (If you have your own request,please let us know it.)



GTA9047
 1650nm DFB Pulsed cooled laser moudle
 100mW,SMF SC/APC 1m.

