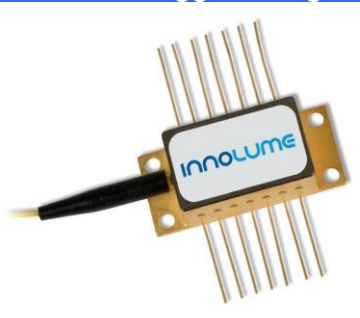


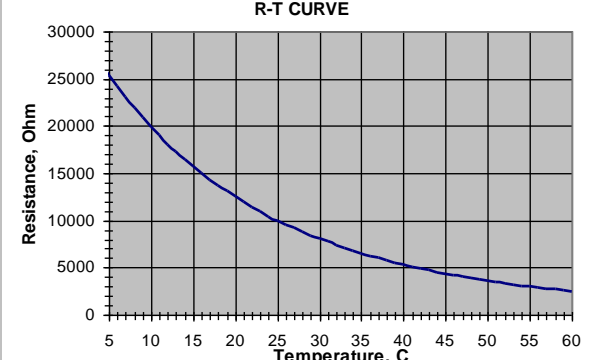
LD-1240-FBG-300	
Fiber Bragg Grating wavelength locked Laser Diode – 300mW @ 1240nm	
	<p>Features:</p> <ul style="list-style-type: none"> Fiber Bragg Grating stabilized external cavity laser Polarization maintaining Corning PM980 fiber High reliable Au/Sn-technology High reliable Quantum Dot based laser chip <p>Application:</p> <ul style="list-style-type: none"> Pump-laser Raman amplifier for O-Band (1310nm) networks, ext. GPON
<p>Target Specification for engineering samples</p>	<p>DATE: 25th Feb 2010</p>

SPECIFICATIONS					
Parameters					
Test conditions: CW operation at P _{out} , thermistor temperature 25°C					
Parameters	Symb.	Min.	Typ.	Max.	Unit
Output power	P _{out}	300			mW
Mean wavelength at P _{out}	λ _P	1238.0	1240.0	1240.5	nm
Spectral Bandwidth @ -20dB	Δλ		0.5	1.5	nm
Threshold current	I _{th}		100	180	mA
Operating current	I _{op}		1100	1400	mA
Forward voltage	V _f		1.6	2.0	V
Polarization Extinction Ratio	PER	15	20		dB
Recommended operating temperature (on thermistor)	T _{op}	15	25	30	°C
Power drop during 100 hours burn-in test ¹				1	%

¹ Burn-in test conditions: heatsink temperature 40°C, CW current I_{op}+200mA

THERMISTOR SPECIFICATION		
Parameters	Value	Unit
Thermistor type	BC103J1K	
Resistance @25°C	10 ± 1	kOhm
Beta 0-50°C	3890	K

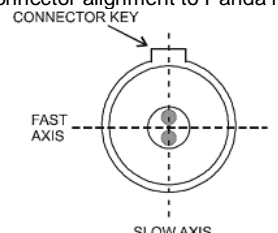
R-T CURVE



Temperature (C)	Resistance (Ohm)
5	25000
10	18000
15	13000
20	10000
25	7500
30	5500
35	4000
40	3000
45	2200
50	1600
55	1200
60	900

FIBER SPECIFICATION		
Parameters	PANDA PM980	Unit
Mode-field diameter (at 1060nm)	6.6±1.0	μm
Cladding diameter	125±1	μm
Coating diameter	245±15	μm
Core-to-cladding offset	≤0.5	μm
Length	1.5 ± 0.5	m
Distance from FBG to laser chip	1.0 ± 0.2	m
Connector	FC/APC	

Connector alignment to Panda fiber:

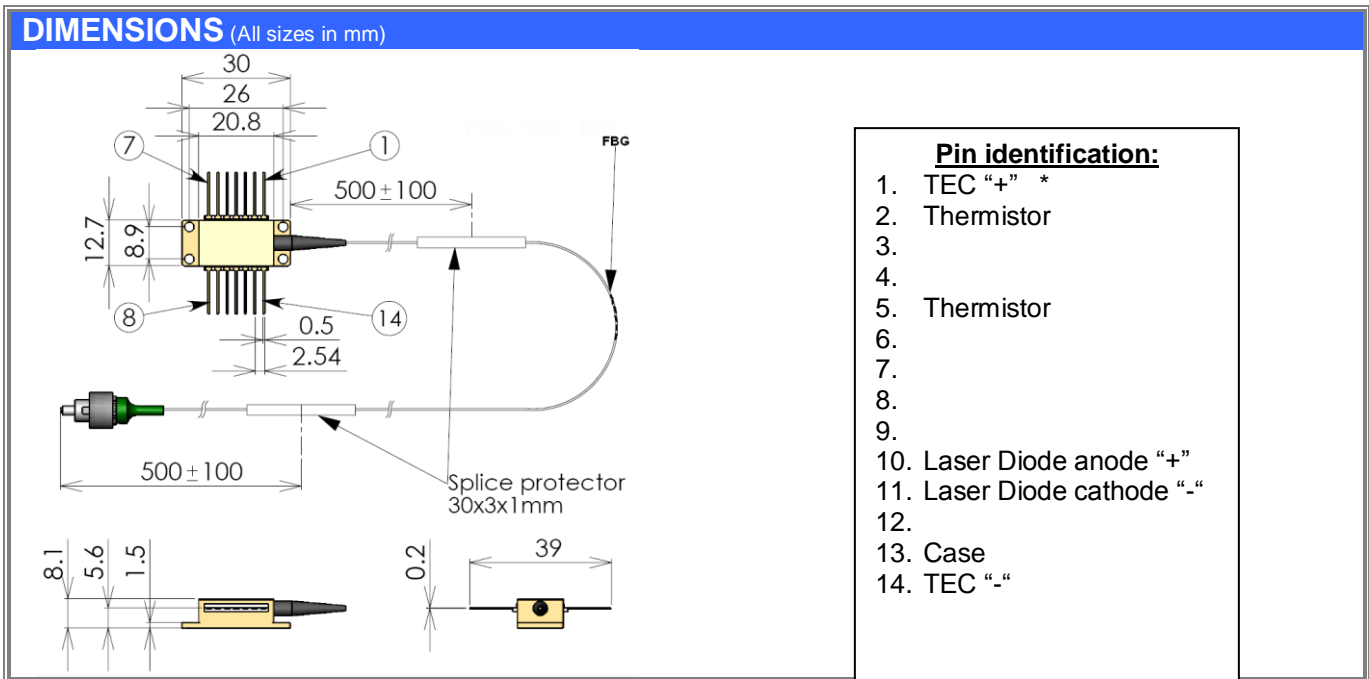


CONNECTOR KEY

FAST AXIS

SLOW AXIS

ABSOLUTE MAXIMUM RATINGS			
Parameters	Min.	Max.	Unit
Laser Diode reverse voltage		2	V
Laser Diode CW forward current		$I_{op}+200$	mA
Thermo Electric Cooler current		3	A
Thermo Electric Cooler voltage		4	V
Storage temperature range (in original sealed pack)	5	80	°C
Case operating temperature range	10	50	°C



* positive current through the TEC cools the laser

SAFETY AND OPERATING INSTRUCTIONS

The laser light emitted from this device is invisible and will harmful to the human eye. Avoid looking directly into the output fiber or into the collimated beam along its optical axis when the device is in operation. Proper laser safety eyewear must be worn during operation.

Operating the device outside of its maximum ratings may cause device failure or a safety hazard. Power supplies used with the component must be employed such that the maximum peak optical power cannot be exceeded. A proper heatsink for the Laser Diode module is required. Exposure to maximum ratings for extended period of time or exposure above one or more max ratings may cause damage or affect the reliability of the device.

ESD PROTECTION – Electrostatic discharge is the primary cause of unexpected Laser Diode failure. Take extreme precaution to prevent ESD. Use wrist straps, grounded work surfaces and rigorous antistatic techniques when handling laser diodes.

LASER RADIATION
 AVOID EXPOSURE TO THE BEAM
 CLASS 3B LASER PRODUCT

CAUTION
 STATIC SENSITIVE DEVICE
 OBSERVE PRECAUTIONS

DANGER

VISIBLE AND/OR INVISIBLE LASER RADIATION
 AVOID EYE OR SKIN EXPOSURE TO
 DIRECT OR SCATTERED RADIATION

DIODE LASER
 MAX POWER 0.5W
 WAVELENGTH 1000 - 1400 nm
 CLASS IIIb LASER PRODUCT

NOTE: Innolume product specifications are subject to change without notice.