DFB Laser Diode for C-WDM The cooled coax DFB-LD (Distributed Feedback Laser Diode)



Discription

- → The cooled DFB-LD has a gain coupled, Multi-Quantum-Well structure (InGaAsP/InP) within a hermetically sealed subcomponent.
- → By means of a thermoelectric cooler the emission wavelength and output power is stabilized over a wide temperature range. The 14 pin Butterfly package includes a bias T for direct modulation. Two versions are available: for low speed applications up to 1.063 GBit/s (Fiber Channel) and for high speed applications up to 2.488 GBit/s (STM-16 rsp. 0C-48).
- → The cooled DFB-LD is thus especially well suited for low cost applications in C-WDM fiber-optic networks.

Key-Features

- → Low cost applications in C-WDM fiber-optic networks
- ightarrow Thermoelectric cooler
- → Direct modulation up to 2.488 GBit/s
- → Multi-Quantum-Well structure (InGaAsP/InP)
- ightarrow Hermetically sealed subcomponent
- ightarrow Qualified acc. to Bellcore 468



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DFB Laser Diode for C-WDM Technical Specifications



Maximum Ratings

Electro-Optical Characteristics

Laser Diode		Module	
Optical Output Power (max): Emission Wavelength Range at 25 °C (Sigma _e = 1 mW):	4 mW 12801320 nm 14701485 nm 15301575 nm < 25 mA 1.5 V < 80 μW > 50 mW/A > 30 dB < 0.015 nm/K 10 k Ω	<i>Operating Temperature at Case: Storage Temperature at Case: Maximum TEC Voltage: Maximum TEC Current:</i>	-10+55 °C -40+85 °C 2.06 V 2.1 A
Threshold Current (25 °C Chiptemp.) Forward Voltage (Sigma _e = 1 mW): Radiant Power at Threshold: Slope Efficiency (25 °C Chiptemp.): Side Mode Suppression Ratio: Temperature Coefficient: Thermistor Resistance:		Laser Diode	
		Direct Forward Current: Reverse Voltage:	120 mA 2 V
		Monitor Diode	
RF-Input Impedance:	25 Ω	Reverse Voltage:	10 V
Monitor Diode		Pinout	
Dark Current (VR= 5 V, Sigma _e = 0 mW): Photo Current (Sigma _e = 1 mW):	< 100 nA 1001100 μA	1 Thermistor 2 Thermistor 3 LD Cathode (Neg. Bias) 4 PD Anode 5 PD Cathode 6 TE-Cooler + 7 TE-Cooler -	8 Case/GND 9 Case/GND 10 Not Connected 11 LD Anode (GND) 12 LD RF (Modulation) 13 LD Anode (GND) 14 Not Connected





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