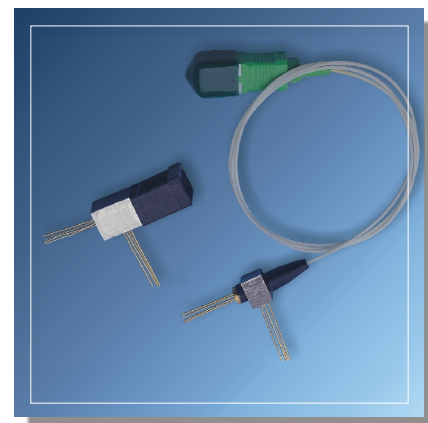


1310nm/1310nm SC Receptacle Diplexer Assembly

Description

The PT8349 series contain a 1310nm MQW F-P laser diode as transmitter, an InGaAs photo-detector integrated with a trans-impedance amplifier (5V or optional 3.3V) into the TO-can as receiver, and a splitter to separate input and output light. So a duplex or half-duplex optical link can be built for a wide variety of data communication applications with high-speed up to 1Gb/s rate, long distance up to 40km. They use 9/125 μ m diameter single fiber with optional FC/APC or SC/APC integrated connector.



Transmitter Characteristics

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Center Wavelength	λ	CW	1260	1310	1360	nm
Threshold Current	I_{th}	CW	-	8	25	mA
Operating Current	I_{op}	CW	-	20	50	mA
Power(PT8349-34-1)	P_o	$I_{th}+20mA$	0.1	0.2	0.4	mW
Spectral Width	$\Delta\lambda$	CW(RMS)	-	-	4	nm
Monitor PD Current	-	-	0.1	-	1.5	mA
MPD Tracking Error	-	$-40\sim 85^{\circ}C$	-	-	1	dB

Features

- MQW F-P 1310nm laser diode as transmitter
- InGaAs PIN with TIA (5V or optional 3.3V) as receiver
- 1310 nm wavelength output, output power 0.15mW
- 1310 nm wavelength input, responsibility 0.5A/W
- Low cross talk $-30dB$
- Integrated a splitter to separate input and output light
- Coaxial single mode fiber package with optional FC/APC or SC/APC connector
- Operation temperature from -40 to $85^{\circ}C$

Receiver Characteristics

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Wavelength	-	$R<10\%$	1260	1310	1360	nm
Responsivity	R	1310nm	0.45	0.55	-	A/W
Operating Current	I_{op}	3.3V	-	-	35	mA
Half Duplex Sensitivity	-	1310nm, 155Mb/s, 3.3V	-	-36	-35	dBm
Optical Cross Talk	C_T	Optical RL $>45dB$	-	-30	-26	dB

Absolute Maximum Ratings

Parameter	Condition	Min	Max	Units
Operating Temperature	T_{op}	-40	$+85$	$^{\circ}C$
Storage Temperature	T_{stg}	-40	$+85$	$^{\circ}C$
Lead Soldering Temperature/Time	T_{sld}	-	240/10	$^{\circ}C/s$
Optical Return Loss	APC connector	-	-45	dB

Applications

- Telecommunication systems
- Data communication systems