High Power Polarization Insensitive Isolator (PSSI & PDSI Series)

Rev 11

Description

The Polarization Insensitive Isolator is designed and manufactured according to Telcordia standard. The unique manufacturing process and optical path epoxy-free design enhance the device's high power handling capability. The optical isolator is characterized with high performance, high reliability and low cost. It has been widely used in EDFAs, fiber lasers, transmitters and other fiber optics communication equipment to suppress back reflection and back scattering.

Key Features

- High Power Handling
- Low Insertion Loss
- High Return Loss

Applications

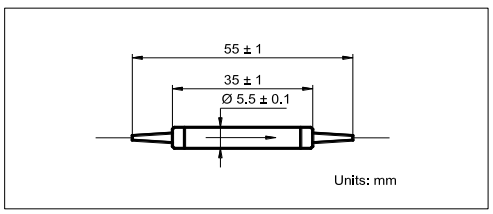
- Fiber Lasers
- EDFA

Specifications

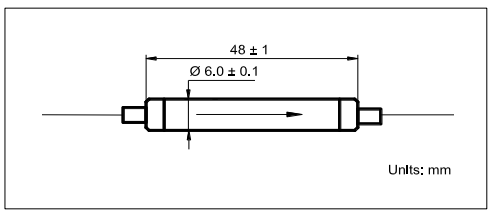
Parameter	Unit	Value			
Stage	-	Single Stage		Dual Stage	
Grade	-	Grade P	Grade A	Grade P	Grade A
Center Wavelength (λc)	nm	1310, 1480 or 1550			
Typ. Peak Isolation	dB	42	40	58	55
Min. Isolation, λc ± 10 nm, All Polarization States, 23 ℃	dB	30	29	46	45
Typ. Insertion Loss, λc, All Polarization States, 23 ℃	dB	0.35	0.5	0.4	0.6
Max. Insertion Loss, λc ± 20 nm, Operating Temperature All Polarization States	dB	0.5	0.7	0.6	0.9
Min. Return Loss (Input/Output)	dB	60/55	60/55	60/55	60/55
Max. Polarization Dependent Loss, 23 ℃	dB	0.10	0.15	0.10	0.15
Max. Polarization Mode Dispersion	ps	0.20	0.25	0.05	0.07
Max. Optical Power (Continuous Wave)	W	10			
Max. Peak Power (Pulse Width, 10 ns)	kW	10			
Max. Tensile Load	N	5			
Fiber Type	-	SMF-28 Fiber			
Operating Temperature	℃	- 5 to + 70			
Storage Temperature	℃	- 40 to + 85			

[1]IL is 0.3 dB higher, RL is 5 dB lower for each connector added. Optical Power will be 1 W only with connector added.

Package Dimensions



Type A (≤ 5 W)



Type B (6 W - 10 W)

Ordering Information

Single Stage: **PSSI**-①①-②②-③-④-⑤-⑥-⑦

Dual Stage: PDSI-①①-②②-③-④-⑤-⑥-⑦

①①: Wavelength	②②: Handling Power	③: Grade	④: PMD	⑤: Fiber Jacket
31 - 1310 nm	05 - 5 W	P - Premium	1 - 0.05 ps Max	B - 250 μm Bare Fiber
48 - 1480 nm	10 - 10 W	A - A Grade	2 - Refer to Above Spec	L - 900 μm Loose Tube
55 - 1550 nm	SS - Specify			S - Specify
SS - Specify				

⑥: Fiber Length	⑦: Power Type
1 - 1.0 m	P - Pulse Application
S - Specify	C - Continuous Wave