

Normally OFF DUAL VARIABLE OPTICAL ATTENUATOR

OVERVIEW

The **sercalo** variable attenuator allows the continuous adjustment of the attenuation in two independent fiber channels with a 0 – 5 V control voltage. The highly reliable attenuation mechanism is based on a micro-mechanical shutter and features below 2 ms response time and only 0.6 dB insertion loss.

The low insertion loss and the high dynamic range make it an ideal component for active power tuning in WDM networks.

The miniature package withstands rugged environments and is well suited for direct mounting on

FEATURES

- reliable
- 0.6 dB insertion loss
- 2 ms response time
- 40 dB dynamic range
- miniature size
- non-latching

APPLICATIONS

- electronic power management
- remote attenuation control
- On/Off switch

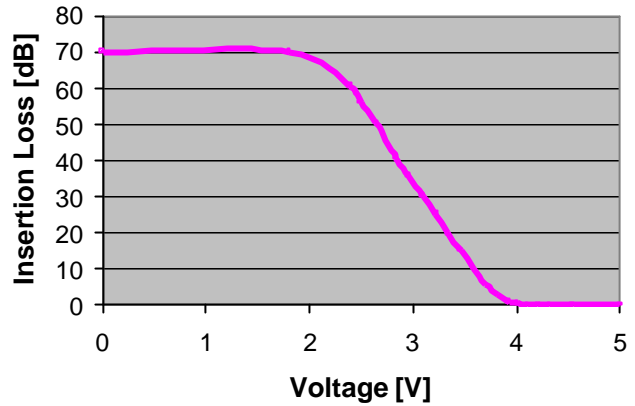
ORDERING INFORMATION
VA2OF-9T12-16 (*tight buffer*)

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DESCRIPTION

The **Sercalo** variable attenuator operates by moving an obstructing element out of the optical beam between two single mode fibers. Fabricated by the latest silicon micro-machining technology the device features low optical loss and small size. The position of the obstructing element can be adjusted by an integrated electrostatic actuator, resulting in a fast and hysteresis free response. Two attenuators are integrated in a single package.

The Figure shows the static voltage versus attenuation response. A maximum attenuation of over 40 dB is typically obtained at power off or 0V at the signal input. When increasing the voltage of the input signal the attenuation gradeally decreases to reach the minimum insertion loss close to 5V. chip.



TECHNICAL SPECIFICATIONS

	Unit	Min	Typ	Max
VOA				
Wavelength Range	nm	1240		1600
Insertion Loss	dB		0.6	1.0
Return Loss	dB		-45	-30
Polarisation Dependent Loss ¹	dB		0.2	0.5
Response Time	ms		2	4
Fiber Pigtail (tight buffer)	mm		9/125/900	
Durability	cycles		no wear out	
Package				
Supply Voltage	V		5	5.25
Power Consumption	mW		50	
Operation Temperature	°C	0		70
Storage Temperature	°C	-40		85
Size (L x W x H)	mm		50 x 25 x 10	

¹ measured at 10 dB attenuation. At higher attenuation levels PDL is proportionally higher.

PIN CONNECTIONS

- 1 Ground 0 V
- 2 Channel 2 Signal 0-5 V
- 3 Channel 1 Signal 0-5 V
- 4 Supply 5 V

