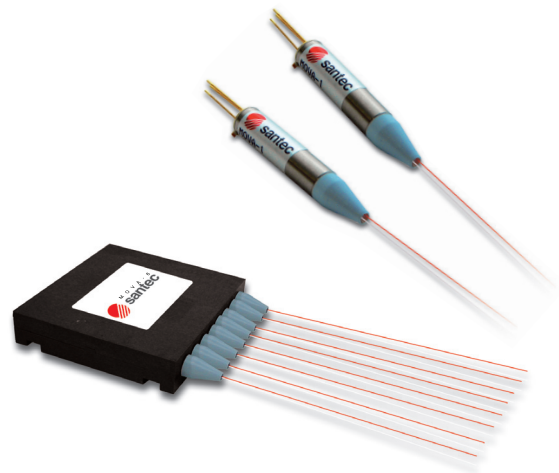


MEMS Attenuator MOVA-1 / 8

Santec's MEMS (Micro Electro Mechanical Systems) based attenuator uses tilting mirror technology. Our MEMS technology is simple and unique MEMS mirror structure for high yield chip production and stable operation as variable optical attenuator. Coupled with laser-welded packaging, this provides both environmental reliability and operational stability design with excellent optical properties. 8 channels array type is compact package and any drive voltage range can be customized as option.



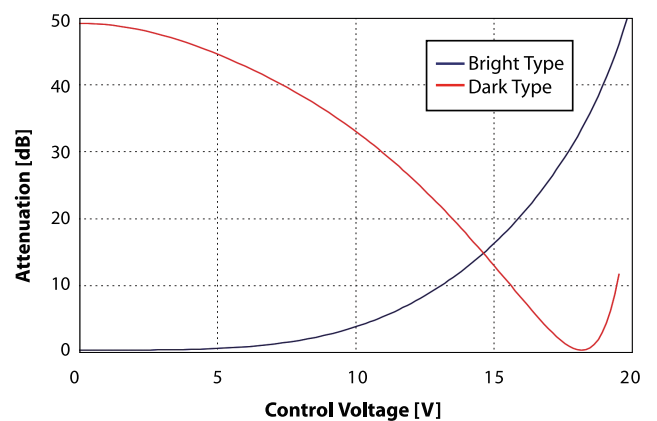
Features

- ▶ Low loss, Low PDL, Low WDL
- ▶ Fast response
- ▶ Low power consumption
- ▶ World Smallest Package is available
- ▶ Proprietary stiction-free structure
- ▶ Excellent anti-shock/vibration performance
- ▶ Bright and dark type available
- ▶ Telcordia GR-1221, GR-63 qualified

Applications

- ▶ Optical power management
- ▶ WDM channel equalization
- ▶ Gain control for amplifiers
- ▶ Overload protection

Typical Data



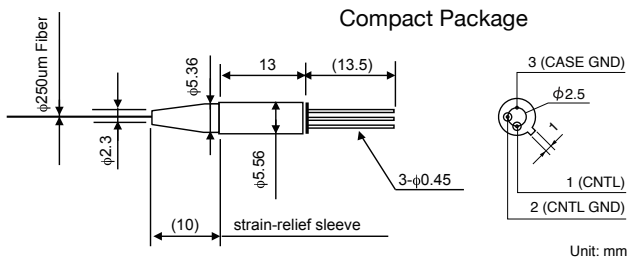
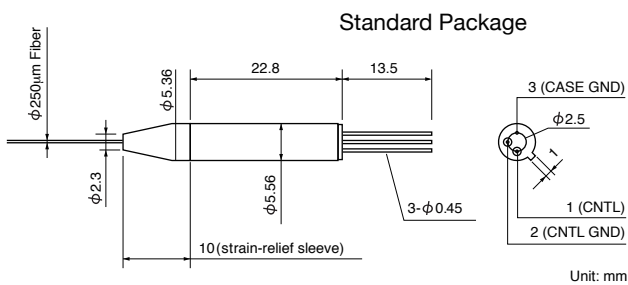
SANTEC OPTICAL COMPONENTS

Specifications

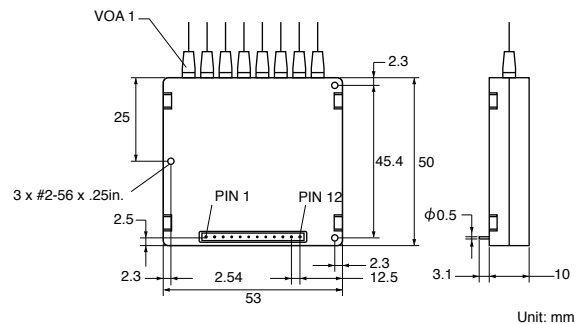
Parameter	Unit		Spec	Note
Wavelength Range	-	nm	1530 - 1570	C band
			1570 - 1610	L band
Insertion Loss	Max.	dB	0.8	Excluding Connectors
Max. Attenuation	Max.	dB	30	Shutter (>40dB) option available
Wavelength Dependent Att.	Max.	dB	0.35	@<20dB Attenuation
Polarization Dependent Att.	Max.	dB	0.3	@<20dB Attenuation
PMD	Max.	psec	0.1	
Response Time	Max.	msec	10	10-90%
Optical Power Handling	Min.	mW	300	
Driving Voltage	Max.	V	20	MOVA-1
			7.5	MOVA-8
Operating Temperature	-	°C	-5 to 70	
Power Consumption	Max.	mW	0.1	MOVA-1
			125	MOVA-8
Fiber Length	-	mm	1000±100	0.25mm SMF

Dimensions

MOVA-1



MOVA-8



Pin Assignment

Pin#	Function	Pin#	Function
1	Vcc	7	Ch5
2	Ch1	8	GND
3	Ch2	9	Ch6
4	GND	10	Ch7
5	Ch3	11	GND
6	Ch4	12	Ch8

Ordering Code

MOVA^{*1}-[A]-[B]-[C]-[D]

A = Channel

B = Activation Type

C = Wavelength range

D = Connector Type

1 : Single channel / 8 : 8 channel array

B : Bright type / D : Dark type

C : C-band / L : L-band

00 : No connector / FS : FC-SPC / FA : FC-APC / SS : SC-SPC /

SA : SC-APC / MU : MU-SPC / MJ : MUJ-SPC / LC : LC-SPC

*1: Compact Package code is "MOVA-C-"

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