

## 1550nm SM MEMS VOA

1550nm SM MEMS Variable Optical Attenuator (MEMS VOA) is an optoelectronic products designed for attenuating the optical power, it intergrates with a MEMS chip inside to adjust the angle of the reflection prism to achive the optical power attenuation function, it's widely used in WDM fiber system, fiber line protection and optical power monitoring field.

### Application:

Fiber Communication  
EDFA Power Protection  
Fiber Line Protection  
Testing System

### Features:

Compact Package  
High attenuation  
High responsivity  
High Reliability

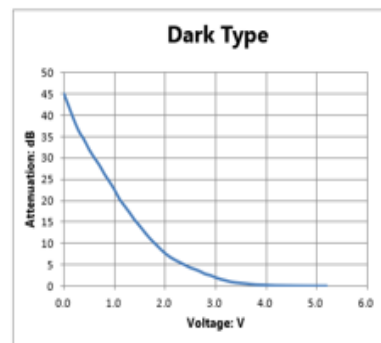
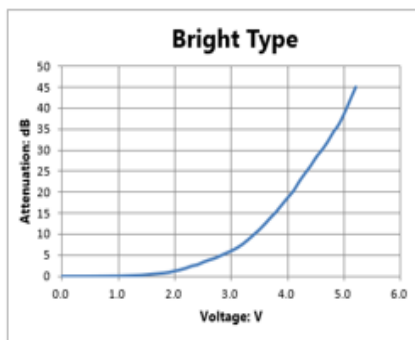


### Specifications:

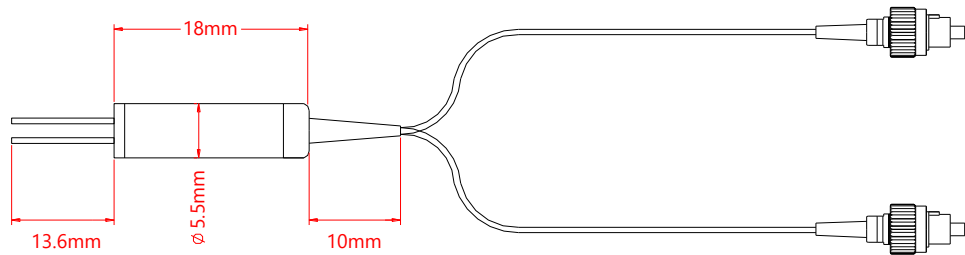
Parameter	Symbol	Value	Unit	Test Condition
Center Wavelength	$\lambda$	1550	nm	
Bandwidth	BW	$\pm 20$	nm	
Max. Attenuation Range	Att.	45	dB	
Typ. Insertion Loss	IL	0.5	dB	0dB attenuation
Max. Insertion Loss	IL	0.7	dB	
Max. Wavelength Dependent Loss	WDL	0.3	dB	0dB attenuation
		1.5	dB	20dB attenuation
Max. Wavelength Ripple		0.05	dB	20dB attenuation, 0.4nm Bandwidth
Max. Polarization Dependent Loss	PDL	0.1	dB	0dB attenuation
		0.3	dB	20dB attenuation
Max. Temperature Dependent Loss	TDL	0.2	dB	0dB attenuation
		1.5	dB	20dB attenuation
Max. Polarization Mode Dispersion	PMD	0.1	ps	
Max. Response Time		3	ms	
Driving Voltage	V	6 or 15	V	
Min. Return Loss	RL	45	dB	
Max. Optical Power (CW)	P	500	mW	
Fiber Type		SMF-28e fber	-	
Operating Temperatuer	T	0 to 70	$^{\circ}\text{C}$	
Storage Temperature	T	-40 to +85	$^{\circ}\text{C}$	

Notice: Above specifications are tested at center wavelength without connector in room temperature @23 $^{\circ}\text{C}$ .

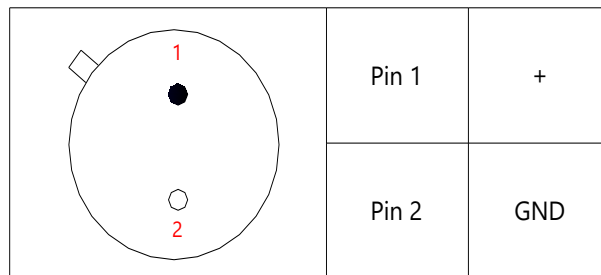
For devices with connectors, IL will be 0.3dB higher, RL will be 5dB lower.



**Drawing:**



**Pin Information:**



**Ordering Information (Part Number):**

SMEV-**WWW**-**T**-**DD**-**J**-**LL**-**CC**

<b>WWW</b>	<b>T</b>	<b>DD</b>	<b>J</b>	<b>LL</b>	<b>CC</b>
Wavelength	Attenuation Type	Driving Voltage	Fiber Jacket	Fiber Length	Connector
1310 - 1310nm	B - Bright	06 - 6V	B - 250um Bare Fiber	05 - 0.5m	NE - None
1550 - 1550nm	D - Dark	15 - 15V	9 - 900um Loose Tube	10 - 1.0m	FA - FC/APC
1625 - 1625nm				15 - 1.5m	FU - FC/UPC
				20 - 2.0m	LA - LC/APC
				SS - Specify	LU - LC/UPC
					SA - SC/APC
					SU - SC/UPC
					ST - ST/UPC

**Notification:**

1. The MEMS products are particularly sensitive of ESD (electro-static discharge), it's recommended to use grounded anti-static wrist straps and grounded anti-static mats before handling the products.
2. Make sure the driving voltage is 0V before and after operating.
3. when switching on the circuit, connect ' - ' (pin2) first, then ' + ' (pin 1) and upgrade voltage slowly. when switch off the circuit, power off ' + ' (pin 1) first, then ' - ' (pin 2).
4. Always take anti-static measures to storage the products when not in use.

