# MEMS VOA

## Variable Optical Attenuator

## *DESCRIPTION*

KOC MEMS Variable Optical Attenuator is based on a micro-electro-mechanical system featuringcompactdesign,easydirectdriveandexcellentopticalperformance.

The MEMS VOAs are used for distributed power equalization within ROADMs, MUX/DEMUX, Band Equalizers, Channel Equalizers, Optical Cross-Connects, Line Cards and Transponders.

MEMS VOAs can be applied for all optical fields requiring input power adjustments of optical signals.

Features

- Compact Package
- High Repeatability,
- High Reliability
- Low IL, PDL, WDL and TDL
- Low Power Consumption
- Qualified to GR-1221

## *PRODUCT*

| PARAMETER | | Min | RATING | | |
|---|---|---|---|---|---|
| | | | Typical | Max | Unit |
| Operation Bias | | | | 7 | V |
| Insertion Loss | | | 0.6 | 1 | dB |
| WDL (C Band) | 0 to 10 dB | | 0.4 | 0.7 | dB |
| | 10 to 20 dB | | 0.7 | 1.0 | dB |
| PDL | 0 to 10 dB | | 0.2 | 0.3 | dB |
| | 10 to 20 dB | | 0.3 | 0.5 | dB |
| Attenuation Slope | | | | 20 | dB/V |
| Attenuation Range | | 30 | 35 | 40 | dB |
| Attenuation Resolution | | Continuous | | | |
| Back Reflection | | | | -45 | dB |
| Optical Power handling** | | | 300 | 500 | mW |
| Power Consumption | | | 80 | 130 | mW |
| Response Time | | | 3 | 5 | ms |
| Repeatability | | | | 0.1 | dB |
| Durability | | $10^9$ | | | cycles |
| Fiber Type | | corning SMF28 or equivalent | | | |
| Operating Temperature | | -5 | | 75 | ˚C |
| Storage Temperature | | -40 | | 85 | ˚C |

* All specifications at room temperature, excluding connectors.
** Over this value will damage the device.

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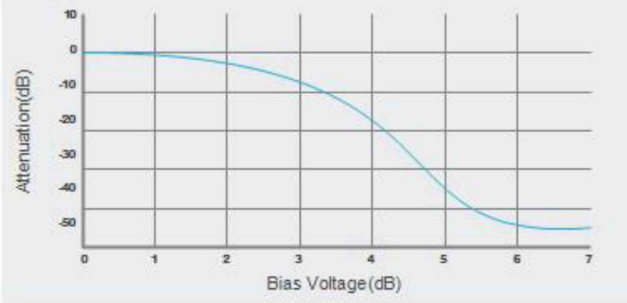
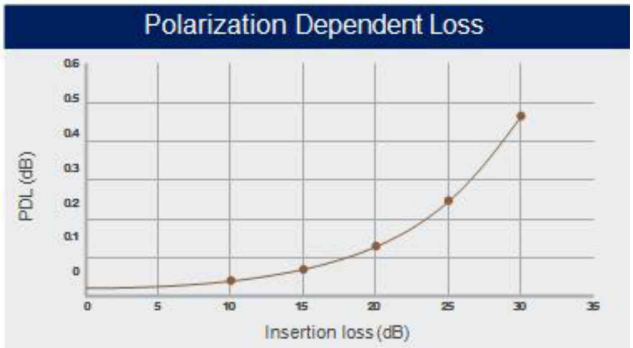
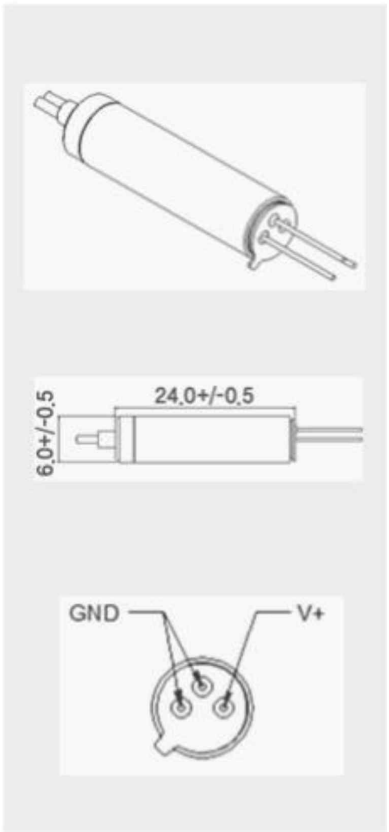
### 2 Graph





### 3 Dimension




### 4 Order Information

**K-mVOA-□ - □ - OO - □ - OO - OO**

| VOA-type | Wavelength | Attenuation | Fiber Mode | Length | Connect |
|---|---|---|---|---|---|
| B: **Bright**<br>D: **Dark** | C: **C-band**<br>L: **L-band**<br>CL: **C~L band** | 30: **<30dB@5V**<br>35: **<35dB@5V**<br>40: **<40dB@5V** | S: **Single Mode**<br>M: **Multi Mode** | 10: **1.0m**<br>05: **0.5m** | F1: **FC/APC**<br>F2: **FC/PC**<br>S1: **SC/APC**<br>S2: **SC/PC**<br>L1: **LC/APC** |