



Electro-Optics Technology, Inc.

Innovative High Quality Laser Solutions

PAVOS

Faraday Rotators & Isolators
1010 nm to 1080 nm



EOT's PAVOS line of Faraday devices builds on over 30 years of experience in successfully protecting lasers from destabilizing and potentially damaging back reflections. The PAVOS line has been specifically designed to meet the needs of high power and high energy $1\ \mu\text{m}$ (1010 nm to 1080 nm) lasers.

Our PAVOS rotators and isolators deliver industry-best laser reliability and performance while providing superior isolation and maintaining very high transmission.

EOT's PAVOS products rely on the Faraday effect from high Verdet constant, low absorption materials to rotate the plane of linearly polarized light in the forward direction and an additional 45° of non-reciprocal rotation in the reverse direction. The PAVOS is available as a rotator or an isolator.

FEATURES

- Completely passive; no tuning required
- Rugged design suitable for harsh operating environments
- Specified performance to 50 W; tested to >400 W
- Optically contacted PBS cubes for improved damage threshold
- All isolators contain rejected beam escape ports
- Input polarization adjustability

OPTIONS

- Input/Output waveplates available
- Precision mounting available
- Precision rejected beam pointing available
- Customization requests encouraged

APPLICATIONS

- Ultrafast, pulsed, and CW lasers
- Microelectronics
- Medical Systems & Device Manufacturing
- Micromachining
- Particle Acceleration



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SPECIFICATIONS

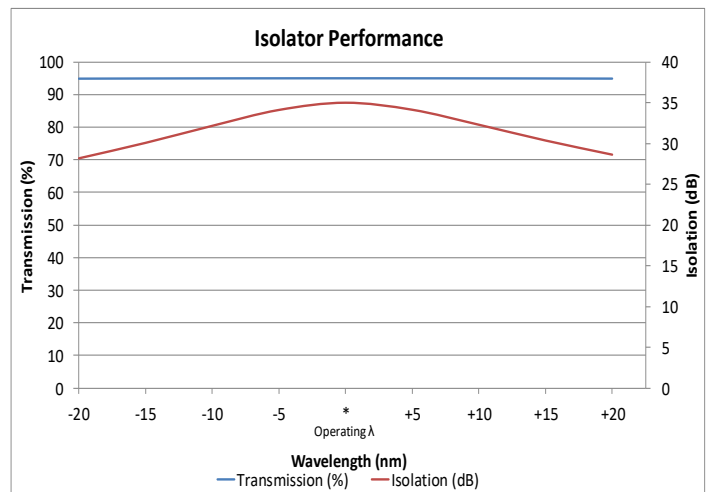
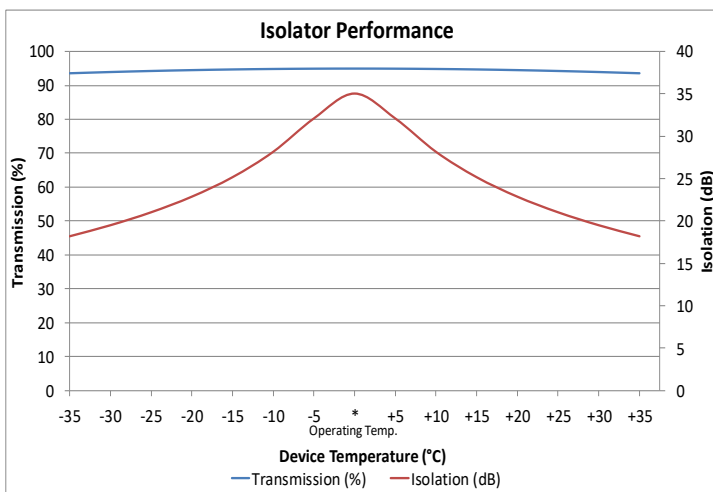
	Small Aperture Rotators	Small Aperture Isolators ^a	Large Aperture Rotators	Large Aperture Isolators ^a
Clear Aperture	2 mm, 5 mm	2 mm, 5 mm	8 mm, 12 mm, 15 mm, 20 mm, 25 mm, 35 mm, 45 mm	8 mm, 12 mm, 15 mm, 20 mm, 25 mm, 35 mm, 45 mm
Peak Transmission	>98% ^b	>95% ^b	>98%	>92%
Peak Isolation	N/A	>33 dB ^b Typical >37 dB	N/A	>30 dB Typical >35 dB
Peak Rotation	45° ± 0.5°	45° ± 0.5°	45° ± 2°	45° ± 2°
Damage Threshold^b	10 J/cm ² at 10 ns 1 J/cm ² at 8 ps 1 MW/cm ² CW	10 J/cm ² at 10 ns 1 J/cm ² at 8 ps 1 MW/cm ² CW	10 J/cm ² at 10 ns 1 J/cm ² at 8 ps 1 MW/cm ² CW	10 J/cm ² at 10 ns 1 J/cm ² at 8 ps 1 MW/cm ² CW
Storage Temperature Range	-40 °C to 70 °C	-40 °C to 70 °C	-10 °C to 60 °C	-10 °C to 60 °C
Factory Tunable Temperature Range	10 °C to 30 °C	10 °C to 30 °C	Upon request	Upon request
Isolated Beam Pointing^c	N/A	<5 mrad	N/A	Upon request

Product specifications are subject to change. All products are RoHS compliant.

^a Escape ports should be used if rejected light is >1 W or 0.15 J/cm² at 10 ns or forward light is >25 W. All stray beams should be properly terminated.

^b At customer-specified wavelength and temperature

^c Input cube only



The standard PAVOS models are available at wavelengths common to many applications but we can also supply the PAVOS optimized for non-standard wavelengths and at various operating temperatures. All customization requests are strongly encouraged. For questions or quotations please email or call our sales representatives at SALES@EOTECH.COM or +1.231.935.4044.