

TECHSPEC[®] 50mm Dia. x 100mm FL, Uncoated Germanium Meniscus Lens



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1

+

A\$2,352^{.00}

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General

Type:

Meniscus Lens

Physical & Mechanical Properties

Diameter (mm):

50.00 +0.0/-0.1

Center Thickness CT (mm):

5.00

Center Thickness Tolerance (mm):

±0.10

Centering (arcmin):

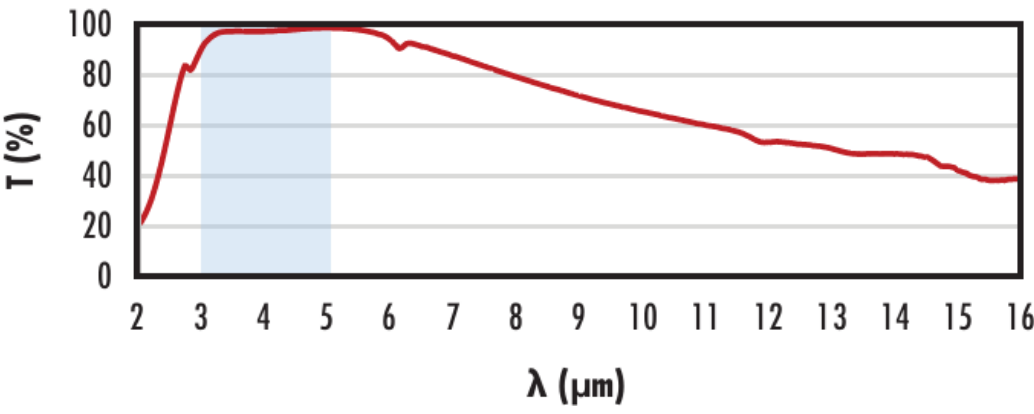
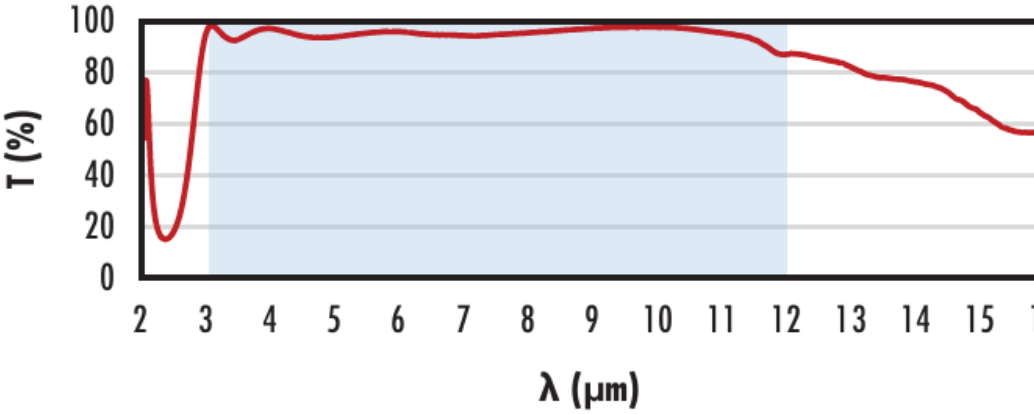
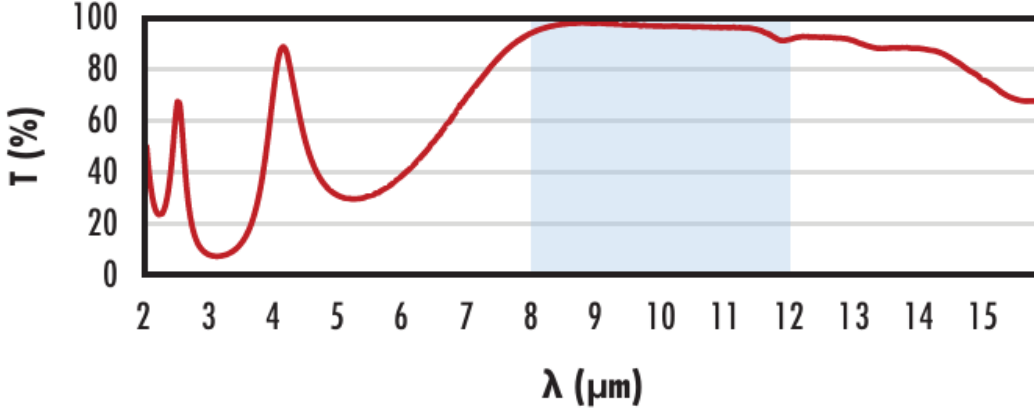
<3	
90.00	Clear Aperture (%):
3.8	Edge Thickness ET (mm):
Optical Properties	
100.00	Effective Focal Length EFL (mm):
Germanium (Ge)	Substrate: ☐
2.00	f/#:
0.25	Numerical Aperture NA:
Uncoated	Coating:
2000 - 14000	Wavelength Range (nm):
96.49	Back Focal Length BFL (mm):
10.6	Focal Length Specification Wavelength (μm):
107.03	Radius R ₁ (mm):
160.46	Radius R ₂ (mm):
60-40	Surface Quality:
2 - 14	Wavelength Range (μm):
Regulatory Compliance	
Compliant	RoHS 2015:
Compliant	Reach 224:
View	Certificate of Conformance:

Product Details

- Wavelength Range of 2 - 16μm
- Durable Design for Demanding Applications
- Superior Spherical Correction
- Due to material supply chain disruptions with germanium, there may be increased lead times and price changes on our germanium products. For more information, please contact our [customer service team](#).
- Edmund Optics has limited remaining inventory of this part number and no raw material available to supply more once this is depleted. Please contact our Product Support Engineers to help with an alternate solution for your needs. Customer Service can provide you the latest price and availability.

TECHSPEC® Germanium Meniscus Lenses are designed for demanding infrared applications including infrared imaging or surveillance, remote sensing, or infrared spectroscopy. TECHSPEC Germanium Meniscus Lenses offer superior spherical correction and smaller spot sizes than comparable focal length [TECHSPEC Germanium PCX Lenses](#). These meniscus lenses are offered uncoated or anti-reflection coated for increased performance in the designated coating wavelength range.

Technical Information

Ge with 3-5μm AR Coating Typical Transmission 	Typical transmission of a 3mm thick Ge window with BBAR (3000-5000nm) coating at 0° AOI. The blue shaded region indicates the coating design wavelength range, with the following specification: $R_{avg} < 3\%$ @ 3000 - 5000nm Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
Ge with 3-12μm AR Coating Typical Transmission 	Typical transmission of a 3mm thick Ge window with BBAR (3000-12000nm) coating at 0° AOI. The blue shaded region indicates the coating design wavelength range, with the following specification: $R_{avg} < 5.0\%$ @ 3 - 12μm Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
8-12μm AR Coated Germanium Typical Transmission 	Typical transmission of a 3mm thick Ge window with BBAR (8000-12000nm) coating at 0° AOI. The blue shaded region indicates the coating design wavelength range, with the following specification: $R_{avg} < 3.0\%$ @ 8 - 12μm Data outside this range is not guaranteed and is for reference only. Click Here to Download Data

Special Handling

Germanium Optics Handling and Cleaning Guidelines

Germanium optics require special handling and cleaning procedures. Always wear gloves during handling to prevent contamination, and wash hands afterward. Avoid contact between Germanium dust and the eyes, skin, or clothing. When not in use, store optics sealed and covered at temperatures between 20°C and 25°C. Do not expose them to temperatures exceeding 100°C when in use.

Handling Guidelines

- Always wear [gloves](#) to prevent damage from skin oils.
- If Germanium dust is present, take the following precautions:
 - Wear safety glasses to protect eyes.
 - Use a dust mask or face mask to avoid inhalation.
 - Wear [gloves](#) to prevent skin contact.
- Maintain storage temperature between 20°C and 25°C with humidity below 30%.
- Wrap Germanium optics in a [lens cloth](#) or [pouch](#) and seal in a [container](#) when not in use.
- Germanium is brittle and heavy—always place it on soft surfaces and avoid dropping it.

Approved Cleaning Solvents

- Ethanol
- Isopropyl Alcohol
- Methanol
- Reagent-Grade Acetone
- Liquid CO₂
- [Shop Now](#)

Compatible Mounts

