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TECHSPEC® 25mm Dia x 50mm FL 3-12µm Coated, Ge Aspheric Lens



Stock #89-613 CLEARANCE 2 In Stock

[Other Coating Options](#)

1 MRP ₹1,76,292

Price inclusive of all taxes

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Volume Pricing	
Qty 1+	₹1,76,292 each
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General

Aspheric Lens **Type:**

Physical & Mechanical Properties

25.00 +0.0/-0.1 **Diameter (mm):**

≤5 **Centering (arcmin):**

Clear Aperture CA (mm):

22.5	Edge Thickness ET (mm):
2.45	
	Center Thickness CT (mm):
3.00 ±0.10	
	Bevel:
Protective as needed	
	Edges:
Diamond Turned	
	Shape of Back Surface:
Concave	

Optical Properties

	Effective Focal Length EFL (mm):
50.00 @ 4000nm	
	Numerical Aperture NA:
0.25	
	Back Focal Length BFL (mm):
48.44	
	Substrate: <input type="checkbox"/>
Germanium (Ge)	
	Aspheric Design Wavelength (nm):
4000	
	Asphere Figure Error, RMS @ 632.8nm:
λ/6	
	Coating:
BBAR (3000-12000nm)	
	Coating Specification:
R _{avg} <5.0% @ 3 - 12μm	
	Surface Quality:
60-40	
	f#:
2.00	
	Index of Refraction (n_d):
4.002 @ 11μm	
	Radius R₂ (mm):
142.9	
	Wavelength Range (nm):
3000 - 12000	
	Conjugate Distance:
Infinite	
	Focal Length Specification Wavelength (nm):
4000	

Material Properties

	Coefficient of Thermal Expansion CTE (10⁻⁶/°C):
6.1	

Regulatory Compliance

	RoHS 2015:
Compliant	
	Certificate of Conformance:
View	
	REACH 241:
Compliant	
	Country of Origin:
United States	
	Imported By:
Edmund Optics India Private Limited 267, Greystone Building, Second Floor, 6th Cross Rd, Binnamangala, Stage 1, Indiranagar, Bengaluru, Karnataka, India 560038 Phone: +91-80-6845 0000	

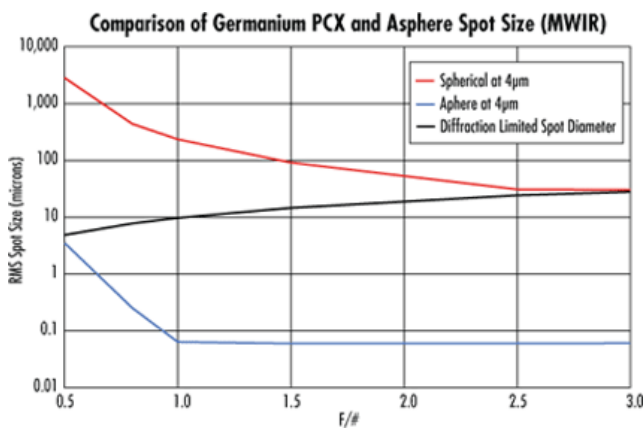
Product Details

- Diffraction Limited Performance
- Variety of Coating Options
- Full Prescription Data Available
- 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 Infrared (IR) Aspheric Lenses provide diffraction-limited focusing performance over a broad spectral range in the Mid and Long Wave infrared regions. Ideal for monochromatic light sources, such as quantum cascade lasers, these lenses offer a high-performance alternative to standard plano-convex lenses. The lenses are available in a 12.5, 25, or 50mm diameter. TECHSPEC® Germanium Infrared (IR) Aspheric Lenses are available uncoated, or with BBAR coating options.

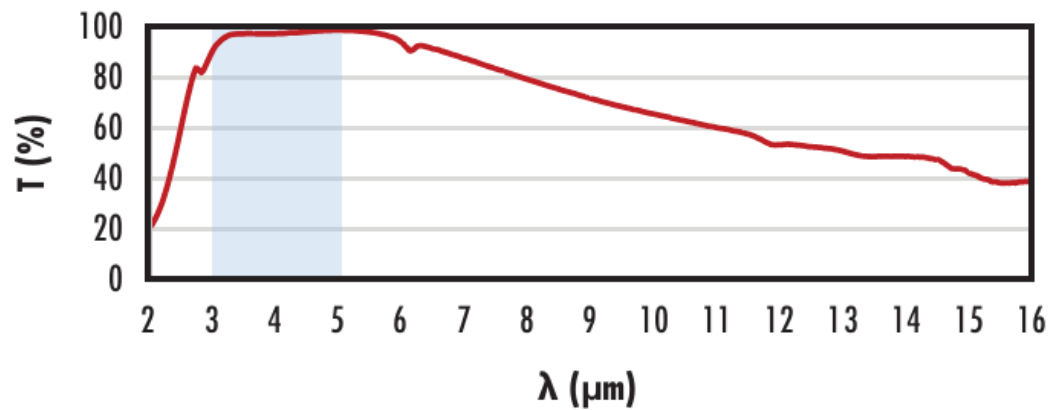
Uncoated germanium has transmission of <50%, so custom anti-reflection (AR) coatings should be considered if specifying an uncoated lens. Each BBAR coated lens offers >95% transmission, making it ideal for integration into a variety of OEM applications. For custom design or coating options, please contact our [Sales Department](#).

Technical Information



AR COATED GERMANIUM

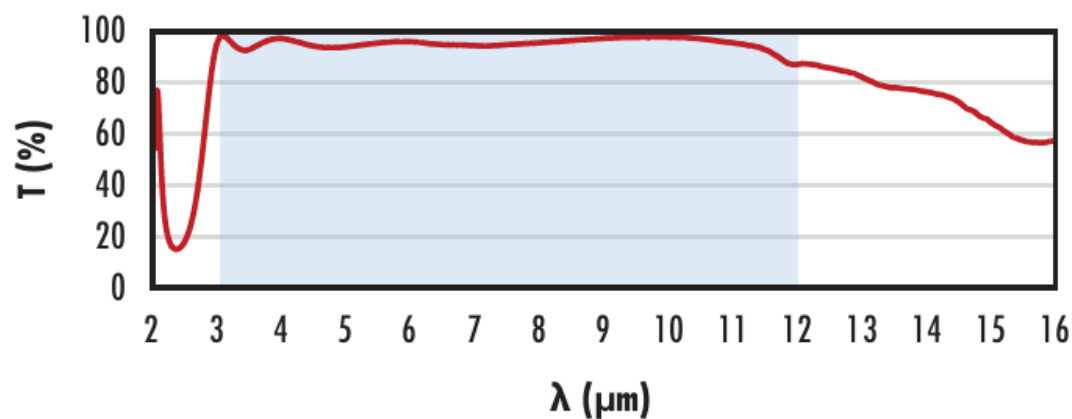
Ge with 3-5µm AR Coating Typical Transmission



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](#)

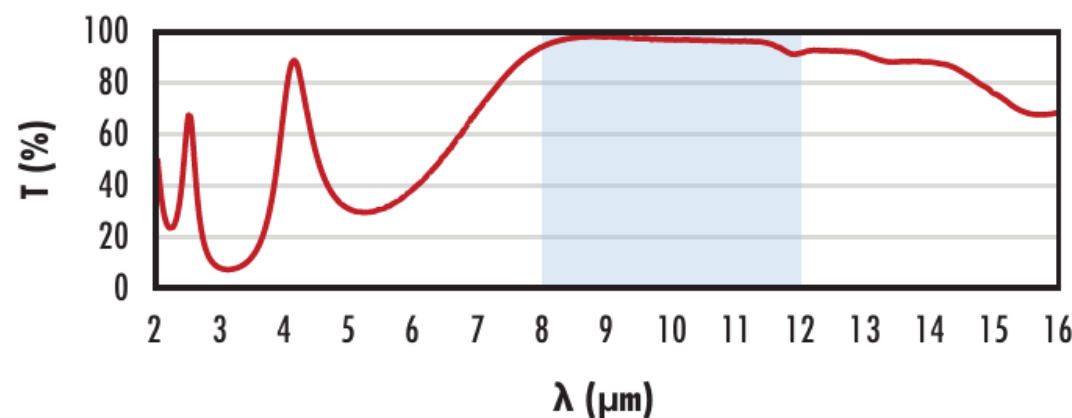
Ge with 3-12µm AR Coating Typical Transmission



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.

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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
