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TECHSPEC® 25mm Dia x 40mm FL 3-12µm Coated, Ge Aspheric Lens

Stock **#89-612** CLEARANCE **1 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

Type:
Aspheric Lens

Physical & Mechanical Properties

Diameter (mm):
25.00 +0.0/-0.1

Centering (arcmin):
≤5

Clear Aperture CA (mm):
22.5

Edge Thickness ET (mm):
2.38

Center Thickness CT (mm):
3.10 ±0.10

Bevel:
Protective as needed

Edges:
Diamond Turned

Shape of Back Surface:
Concave

Optical Properties

Effective Focal Length EFL (mm):
40.00 @ 4000nm

Numerical Aperture NA:
0.31

Back Focal Length BFL (mm):
37.89

Substrate:
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/#:
1.61

Index of Refraction (n_d):
4.002 @ 11µm

Radius R_2 (mm):
65.6

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

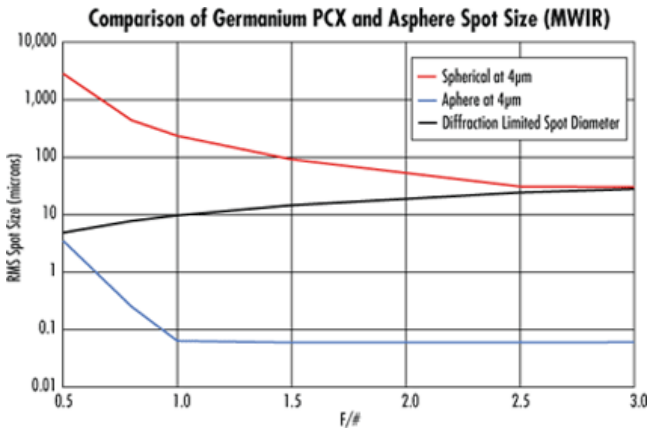
Product Details

- 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.

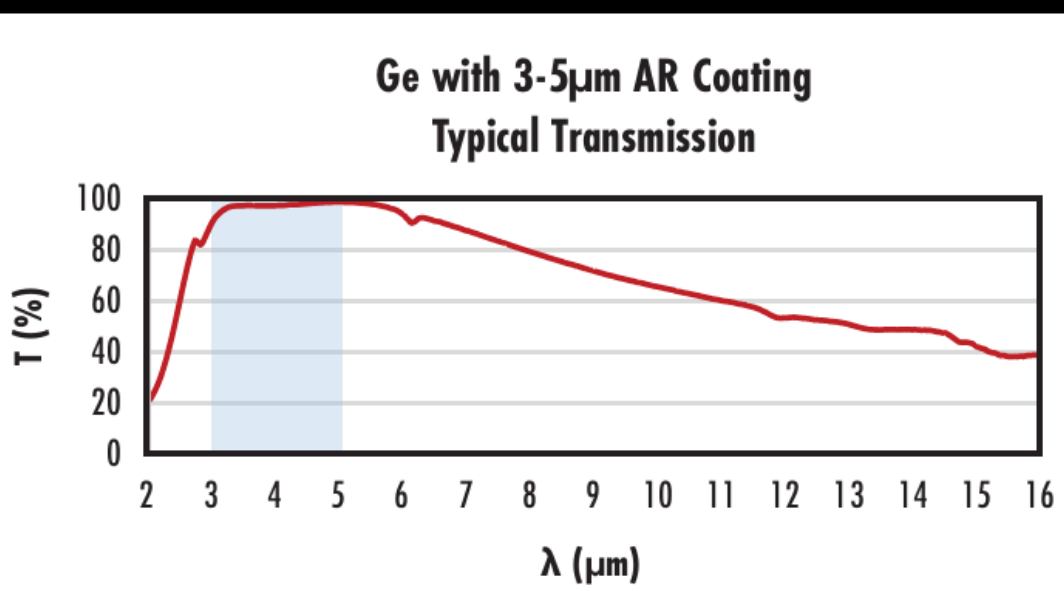
TECHSPEC® Germanium Infrared (IR) Aspheric Lenses provide diffraction-limited focusing performance over a broad spectral range in the Mid and Long Wave infrared regions. Ideal for monochromatic light sources, such as quantum cascade lasers, these lenses offer a high-performance alternative to standard 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



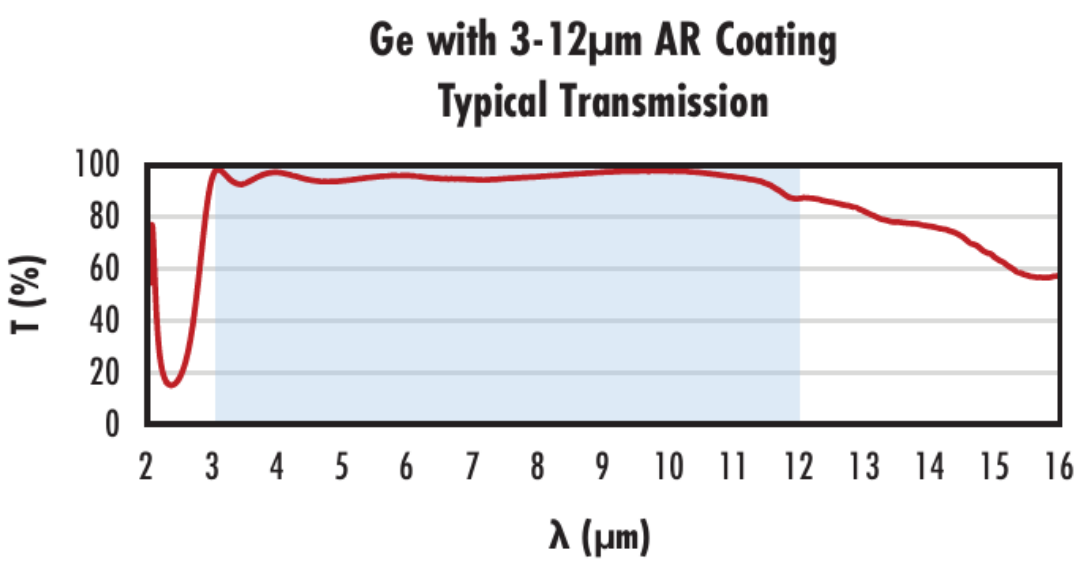
Typical transmission of a 3mm thick Ge window with BBAR (3000-5000nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelengh 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



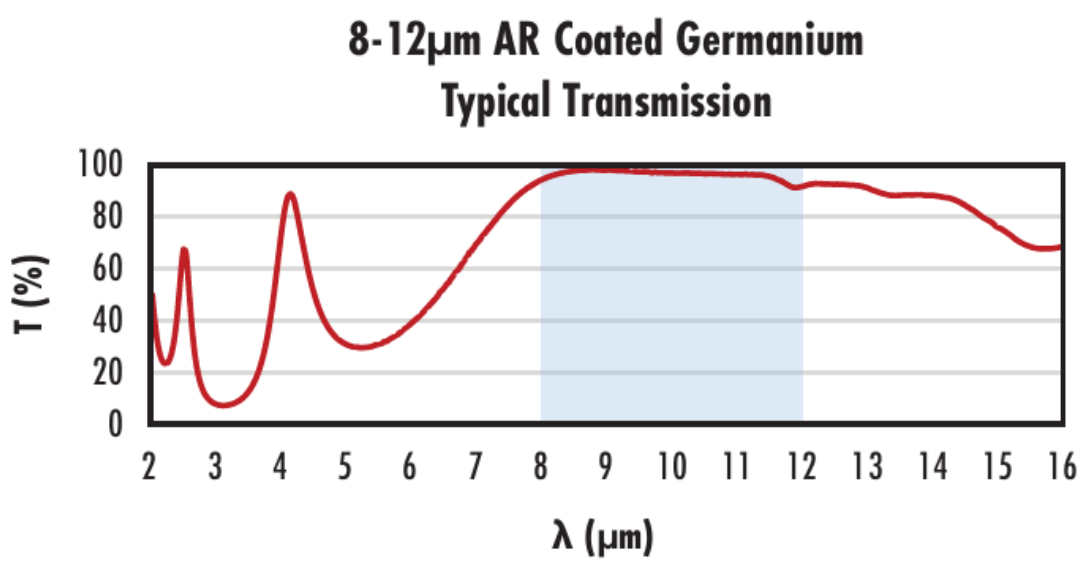
Typical transmission of a 3mm thick Ge window with BBAR (3000-12000nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelengh 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



Typical transmission of a 3mm thick Ge window with BBAR (8000-12000nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelengh 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 CO_2
- **Shop Now**

Compatible Mounts

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