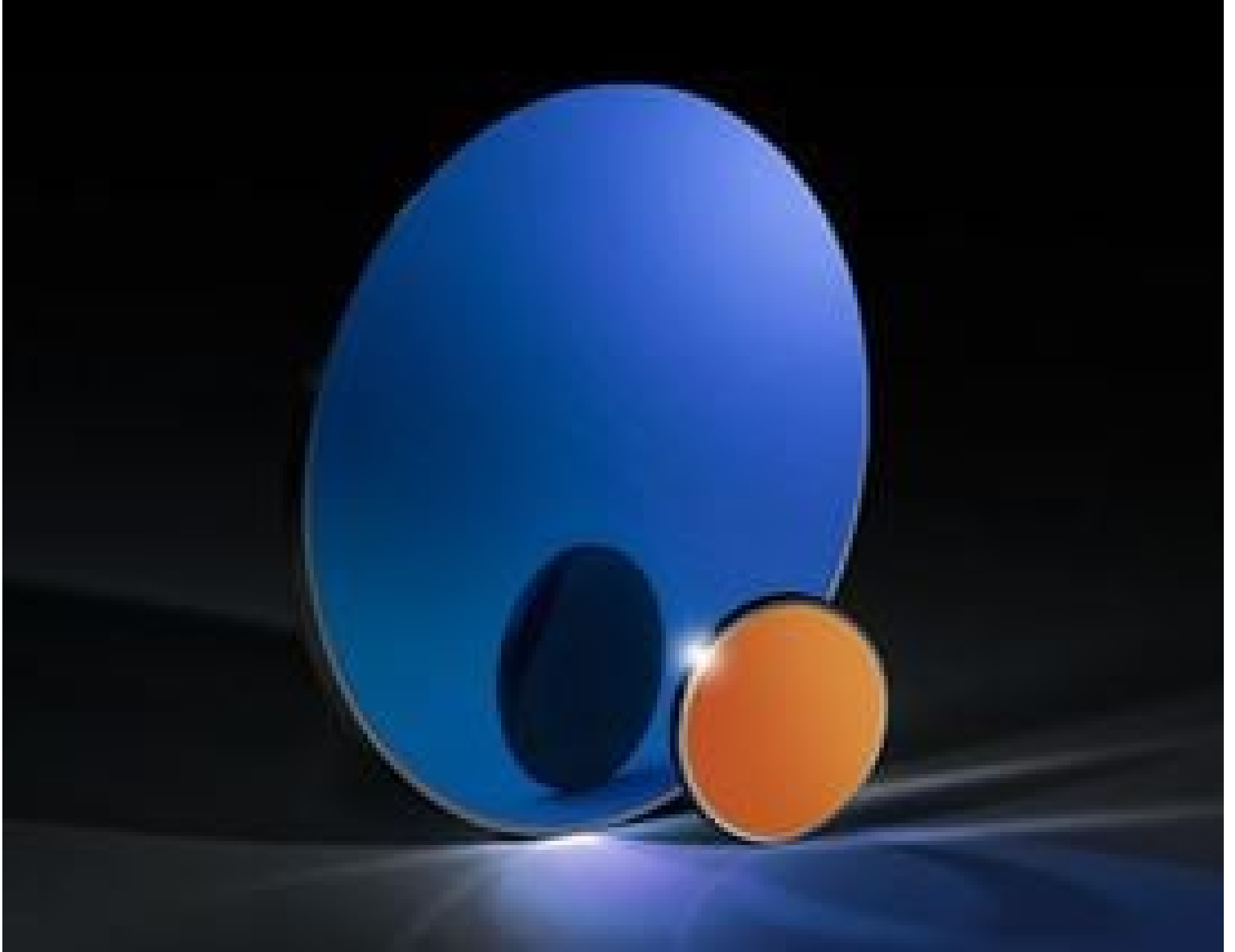


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12.7mm Dia., 1mm Thick, Uncoated, ISP Optics Silicon (Si) Window | SI-W-12-1

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Stock #24-623 CLEARANCE 20+ In Stock

⊖ 1 ⊕ S\$122⁰⁰

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Product Downloads

General

SI-W-12-1 **Model Number:**

Protective Window **Type:**

Crystal **Type of Window:**

Physical & Mechanical Properties

10.79 **Clear Aperture CA (mm):**

| | |
|----------------------|--|
| 12.70 +0.00/-0.13 | Diameter (mm): |
| 1.00 ±0.13 | Thickness (mm): |
| <3 | Parallelism (arcmin): |
| Protective as needed | Bevel: |
| 85 | Clear Aperture (%): |
| Fine Ground | Edges: |
| 0.27 | Poisson's Ratio: |
| 140 | Young's Modulus (GPa): |
| 1,150.00 | Knoop Hardness (kg/mm²): |

Optical Properties

| | |
|------------------------------|---|
| Uncoated | Coating: |
| Silicon (Si) | Substrate: <input type="checkbox"/> |
| 3.422 @ 5µm | Index of Refraction (n_d): |
| 40-20 | Surface Quality: |
| 1200 - 7000 | Wavelength Range (nm): |
| 2λ | Surface Flatness (P-V): |

Material Properties

| | |
|------|---|
| 2.33 | Density (g/cm³): |
| 2.55 | Coefficient of Thermal Expansion CTE (10⁻⁶/°C): |

Regulatory Compliance

| | |
|---------------------------|------------------------------------|
| Compliant | RoHS 2015: |
| View | Certificate of Conformance: |
| Compliant | Reach 240: |

Product Details

- Transmission from 1.2 - 7µm
- Available Uncoated or HDAR Coated for 3 - 5µm
- Ideal for Weight Sensitive Applications

ISP Optics Silicon (Si) Windows provide transmission in the Near-Infrared (NIR) and Mid-Wave Infrared (MMIR) from 1.2 - 7µm. Silicon features a Knoop Hardness of 1150, making it harder and less brittle than Germanium. A High-Durability Anti-Reflection (HDAR) coating option increases the durability of the substrate while significantly improving transmission from 3 - 5µm, enabling use in harsh environments. ISP Optics Silicon (Si) Windows are ideal for weight-sensitive IR applications due to its low density of 2.329 g/cm³, which is half as dense as Germanium and Zinc Selenide. These windows are ideal for NIR imaging applications and are important for detection of sources radiating at a black body temperature of 700K.