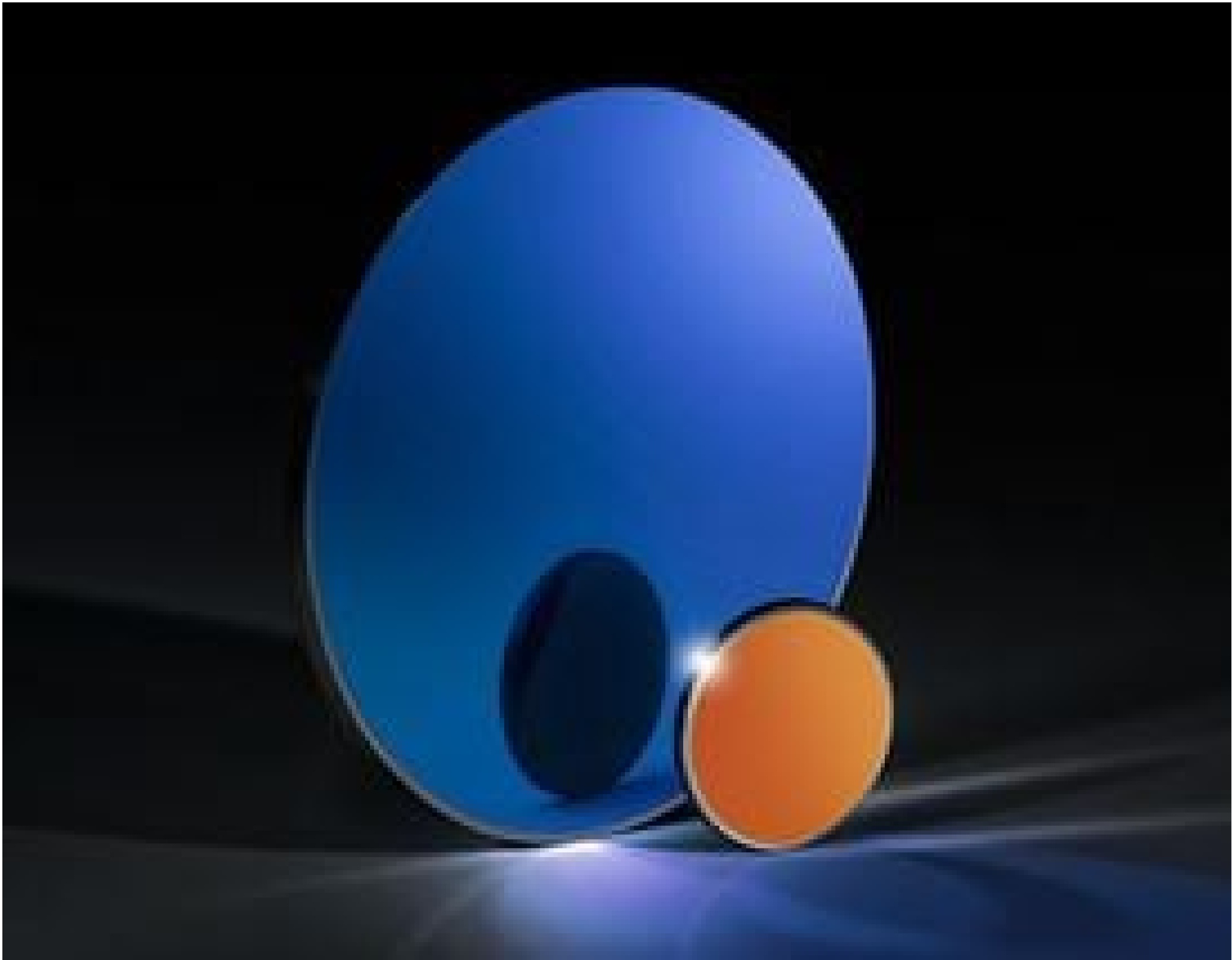


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# 12.7mm Dia., 1mm Thick, Uncoated, ISP Optics Silicon (Si) Window | SI-W-12-1

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Stock **#24-623** CLEARANCE **20+ In Stock**

-

1

+

A\$140<sup>00</sup>

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Product Downloads

General

|                   |               |
|-------------------|---------------|
| SI-W-12-1         | Model Number: |
| Protective Window | Type:         |

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:                               |
| <a href="#">Silicon (Si)</a> | Substrate: <input type="checkbox"/>    |
| 3.422 @ 5µm                  | Index of Refraction (n <sub>d</sub> ): |
| 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 <sup>-6</sup> /°C): |

Regulatory Compliance

|                           |                             |
|---------------------------|-----------------------------|
| <a href="#">Compliant</a> | RoHS 2015:                  |
| <a href="#">View</a>      | Certificate of Conformance: |
| <a href="#">Compliant</a> | 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.