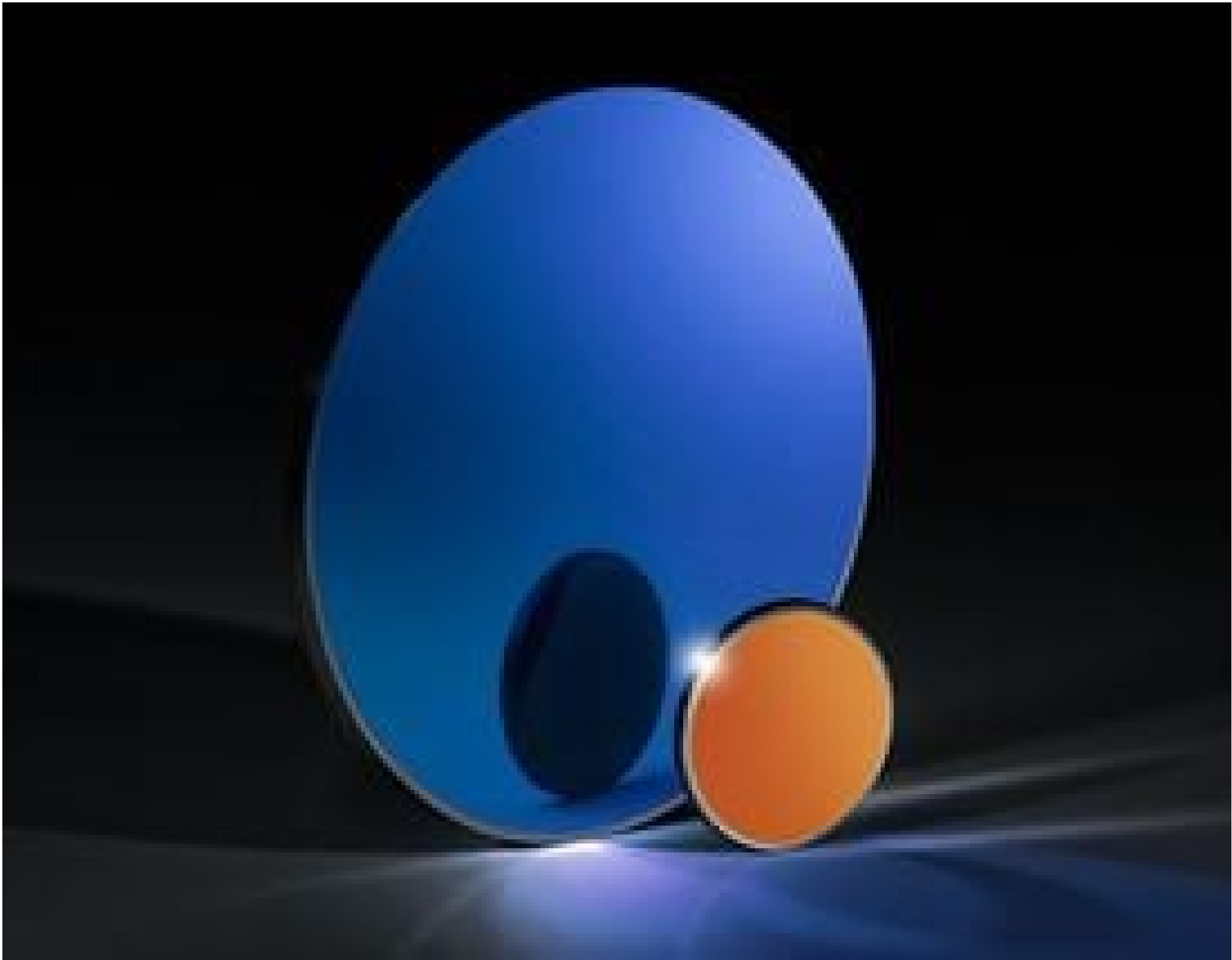


12.7mm Dia., 2mm Thick, Uncoated, ISP Optics Silicon (Si) Window | SI-W-12-2

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1

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S\$123¹⁸

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SPECIFICATIONS

General

Protective Window	Type:
SI-W-12-2	Model Number:

Physical & Mechanical Properties

Protective as needed	Bevel:
85	Clear Aperture (%):
10.79	Clear Aperture CA (mm):
12.70 +0.00/-0.13	Diameter (mm):
2.00 ±0.13	Thickness (mm):
Fine Ground	Edges:
1,150.00	Knoop Hardness (kg/mm²):
<3	Parallelism (arcmin):
0.27	Poisson's Ratio:
140	Young's Modulus (GPa):

Optical Properties

Uncoated	Coating:
3.422 @ 5µm	Index of Refraction (n _d):
Silicon (Si)	Substrate:
2λ	Surface Flatness (P-V):
40-20	Surface Quality:
1200 - 7000	Wavelength Range (nm):

Material Properties

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

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 (MMR) 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.