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## 25.4mm Diameter, 12.7mm Through Hole, Sapphire Window



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Stock #17-213 **6 In Stock**

⊖ 1 ⊕ **S\$186<sup>00</sup>**

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### Volume Pricing

Qty 1-5	<b>S\$186.20</b> each
Qty 6-25	<b>S\$159.60</b> each
Qty 26-49	<b>S\$158.20</b> each
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### Product Downloads

### General

Protective Window **Type:**

### Physical & Mechanical Properties

25.40 ±0.127 **Diameter (mm):**

1.00 ±0.127 **Thickness (mm):**

≤3.5	<b>Parallelism (arcmin):</b>
Protective as needed	<b>Bevel:</b>
0.27	<b>Poisson's Ratio:</b>
435	<b>Young's Modulus (GPa):</b>
1,900.00	<b>Knoop Hardness (kg/mm<sup>2</sup>):</b>
12.70 ±0.127	<b>Through Hole Diameter (mm):</b>

## Optical Properties

Uncoated	<b>Coating:</b>
Sapphire (Al <sub>2</sub> O <sub>3</sub> )	<b>Substrate:</b> <input type="checkbox"/>
1.77	<b>Index of Refraction (n<sub>d</sub>):</b>
80-50	<b>Surface Quality:</b>
72.24	<b>Abbe Number (v<sub>d</sub>):</b>
0.1 per Inch	<b>Surface Roughness (µm):</b>
0.008 for Visible Light Orthogonal to Optical Axis	<b>Birefringence (n<sub>o</sub>-n<sub>e</sub>):</b>
Random	<b>Axis Orientation:</b>
330 - 5500	<b>Wavelength Range (nm):</b>
2λ (typical)	<b>Surface Flatness (P-V):</b>

## Material Properties

3.97	<b>Density (g/cm<sup>3</sup>):</b>
8.8	<b>Coefficient of Thermal Expansion CTE (10<sup>-6</sup>/°C):</b>

## Regulatory Compliance

<a href="#">Compliant</a>	<b>RoHS 2015:</b>
<a href="#">View</a>	<b>Certificate of Conformance:</b>
<a href="#">Compliant</a>	<b>Reach 247:</b>

## Product Details

- 25.4mm Diameter Sapphire Substrates
- 3.2 - 19.1mm Through Hole Diameters
- High Transmission From 0.33 - 5.5µm

Sapphire Windows with Through Holes, also referred to as sapphire washers, feature 25.4mm diameter sapphire substrates with a centered through hole ranging in diameter from 3.2 - 19.1mm. Sapphire offers extreme surface hardness second only to [diamond](#), high thermal conductivity, and is chemically inert, making it ideal for use in harsh environments. These windows provide high transmission from 0.33 - 5.5µm and can be made much thinner than glass windows due to the structural strength of sapphire. Sapphire Windows with Through Holes can be manufactured as modified standard versions of our [sapphire windows](#) or as entirely custom products; please contact us to discuss your application requirements.

## Custom

Edmund Optics offers comprehensive custom manufacturing services for optical and imaging components tailored to your specific application requirements. Whether in the prototyping phase or preparing for full-scale production, we provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

Our capabilities include:

- Custom dimensions, materials, coatings, and more
- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).