



O&E Package Solution

Product Specification

Spec#: TO52 Cap (Wedge window)

AFN: JDFZ-JS-A02

VER: 000

1.Product Description

1.1 Specifications : TO52 Cap (Wedge window)

1.2 Drawing No. : HP1004015C

2.Product Specifications

2.1 Substrate Specifications

2.1.1 Material : Shell: 4J50 , Window: K9

2.1.2 Size : Shell: H=3.7-10° φ2.55 , Window: φ4.1×0.2 5.5°

2.1.3 Surface quality : Clear aperture optical surface conforms to MIL-PRF-13830B 40/20

Effective light transmission MIL-PRF-13830B 20/10, no pocking;

2.1.4 Solder : HFJD low-temperature glass 1#(radiation resistant glass) sintering packaging ;

2.2 Finished Product Specification

Dimension (mm)	Depth (mm)	Effective Clear Aperture (mm)
3.70±0.05	2.5min	Φ1.8min

2.3 Spectrum Specifications

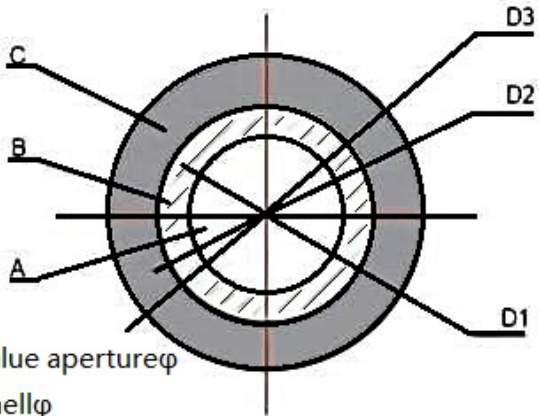
AR Coating on both side, T > 99%@1250-1650, T > 99.5% @1480-1650nm

2.4 Airtightness

Leakage rate<1X10⁻⁸ Pa·m³/s He

3. Appearance Quality

Quality Characteristic	Tolerance / Allowable Value	Instruments
Visual Inspection		
3.1 Window		
Surface particulate contamination	Area A: Within 0.9mm diameter of the central Clear Aperture: Diameter of pit ≤ 0.01mm Area B: Out of 0.9mm diameter of the central Clear Aperture: Diameter of pit ≤ 0.05mm, 3-5 pits between 0.01~0.05mm Acceptable Area C welding area: compliant with 40/20 Dense points and Movable foreign parts Not allowed Point off and foreign material are equivalent to pocking	Microscope Image analyzers

	 <p>D1: $\phi 0.9$ D2: minimum-value aperture ϕ D3: inside the shell ϕ</p>		
Scratch	Area A (within 0.9 mm) Not allowed. Area B (outside 0.9mm) comply to 40/20 Scratch width $\leq 0.04\text{mm}$ Single scratch length $\leq \frac{1}{4} D$ Multiple scratches are accumulated $\leq \frac{1}{2} D$ 2 scratches when width = 0.04mm Acceptable Width $< 0.01\text{mm}$ Acceptable		Microscope Image analyzers
Crack	no crack		Microscope
Notches on the periphery of the glass window	depth	$< 0.1\text{mm}$ Acceptable	Microscope
	width	$< 0.2\text{mm}$ Acceptable	
3.2 Brazed glass			
Brazed glass spills	According to the drawing		Microscope
Air bubbles	According to the drawing		Microscope
Poorly sealed or other voids in the brazed area	No obvious gaps, impurities and other defects		Microscope
Color	Uniform color or uniform gradients are acceptable		Microscope
3.3 Shell			
Buff	0.02 mm MAX		Microscope
welded-on flange	No deformation		Microscope
surface	Uniform		Microscope
Exposure points	Not allowed		Microscope
Stains、 rust	Not allowed		Microscope
No moving particles in the inner cavity.	Not allowed		Microscope
3.4 Size			
Interior height	According to the drawing		Vernier caliper

4. Reliability test

FN : TO52 Cap (wedge angle) Product Specification AFN : JDFZ-JS-A02 VER : 000

Item	Methods	Criteria	Sampling	Instruments
Solderability	Soldering in high temperature 400°C. After cooling down, using thrust meter to detect thrust.	Trust of welding > 3kg/mm ²	Per lot	Thrust meter
High temperature boiling	100°C/0.095-0.105Mpa/10H	Airt ightness <1X10 ⁻⁸ Pa·m ³ /s He	Per lot	High temperature cooking equipment Leak detector

5. Package

5.1 The product packaging box uses anti-static materials to ensure the cleanliness of the packaging box and ensure that the materials will not be polluted and corroded.

5.2 The boxes are packed into clean bags, filled with desiccant and vacuum baled.

5.3 The vacuum packaging bag is attached with a label, which contains: Lot No., product name, quantity, delivery date, and company name.

5.4 The packing box needs to have flexible materials such as foam to ensure that the vacuum of the packing box does not fail and is not damp.

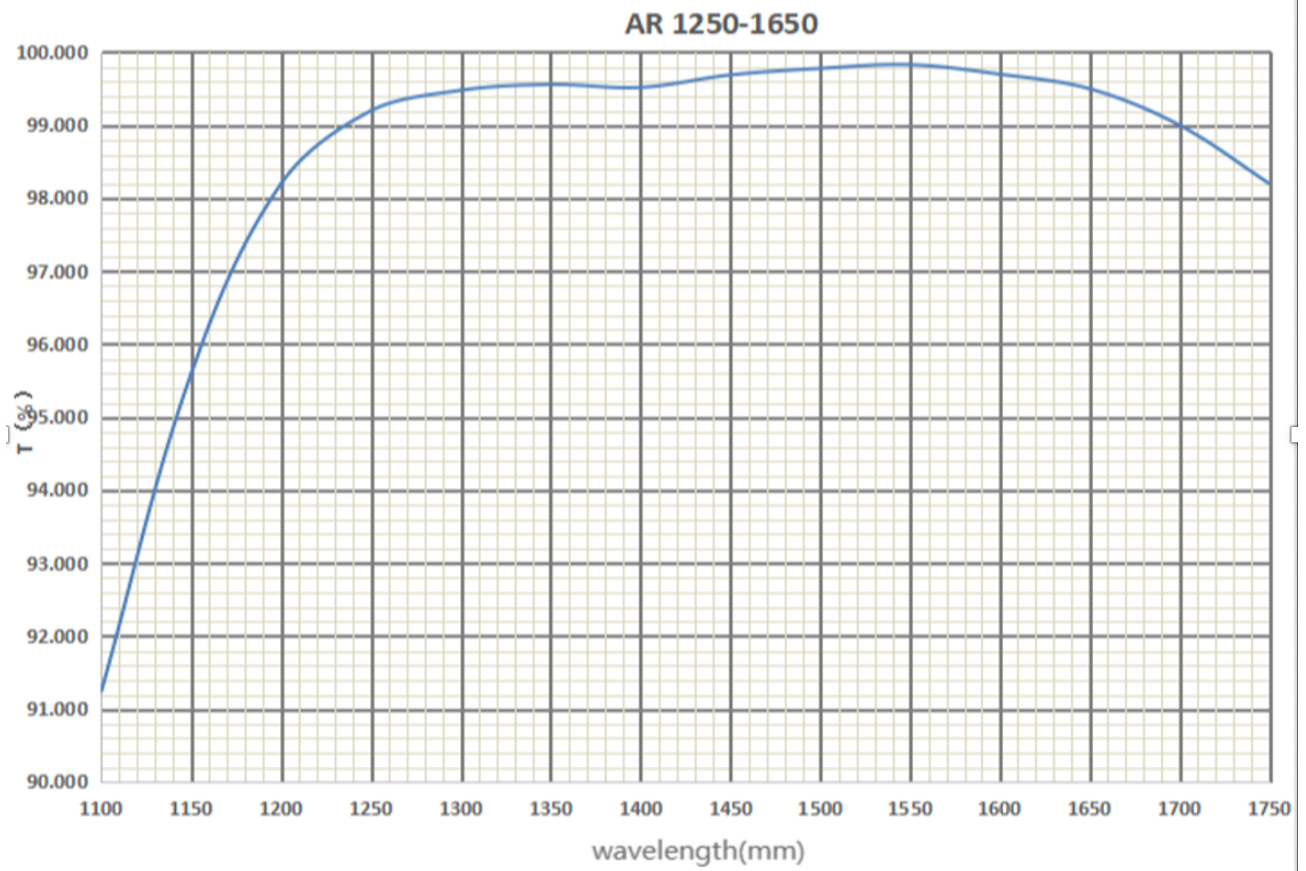
6. Shipping

6.1 The products should be packed in a sturdy box. The box should meet fragile goods transport requirements.

6.2 Avoid direct exposure to the rain, snow and mechanical collision during transportation.

6.3 Inspection reports should be packed in the packing box and the report should meet the requirements according to the drawings.

7. Spectrum



8. Drawing No. : HP1004015C

