O&E Package Solution

Product Specification

Spec#： TO52 Cap （Sapphire window）

AFN： JDFZ-JS-A07

VER： 000

FN：TO52 Cap（Sapphire Window ） Product Specification AFN：JDFZ-JS-A07 VER：000

1. Product Description

1.1 Specifications：TO52 Cap（Sapphire window）

1.2 Drawing No.：HP1004055B

2. Product Specifications

2.1 Substrate Specifications

2.1.1 Material：Shell: 4J50，Window: sapphire

2.1.2 Size：Shell: H=3.0 φ3.2, Window: φ4.1×0.25

2.1.3 Surface quality：Clear aperture optical surface conforms to MIL-PRF-13830B 60/40

Effective light transmission MIL-PRF-13830B 40/20, no pocking

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

2.2 Finished Product Specification

Dimension (mm)	Depth（mm）	Effective Clear Aperture（mm）
3.00+0.05/-0.10	2.3min	Φ2.5min

2.3 Spectrum Specifications

No AR Coating

2.4 Airtightness

Leakage rate<1X10^{-8} Pa·m^3/s He

3. Appearance Quality

Quality Characteristic		Tolerance / Allowable Value		Instruments
Glass	gap(periphery)	Depth	< 0.2 mm Acceptable	Microscope
		Width	< 0.2 mm Acceptable	
	pocking	According to the drawing		Microscope
	scratches	Total length less than ¼ diameter，width ≤0.04mm acceptable		Microscope
Soldering flux	air bubbles	<¼Welding area Acceptable Welding area¼ ~ ½ ≤3pcs Acceptable >Welding area ½ Not allowed		Microscope
	packaging	No notch, impurities and other defects in welding area		

	overflow of solder	Functional area≥ Minimum Effective Clear Aperture	
Shell	burr	Maximum: 0.02mm	Microscope
	spots	Covered by a metallized layer and intact	
	rust	Not allowed	
	color	No color difference Overall color uniform Acceptable	
	surface	No fouling, bubbling, oxidizing black spot and other welding pollution.	Microscope

4. Reliability test

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/mm2	Per lot	Thrust meter
High temperature boiling	100℃/0.095-0.105Mpa/10H	Air tightness <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

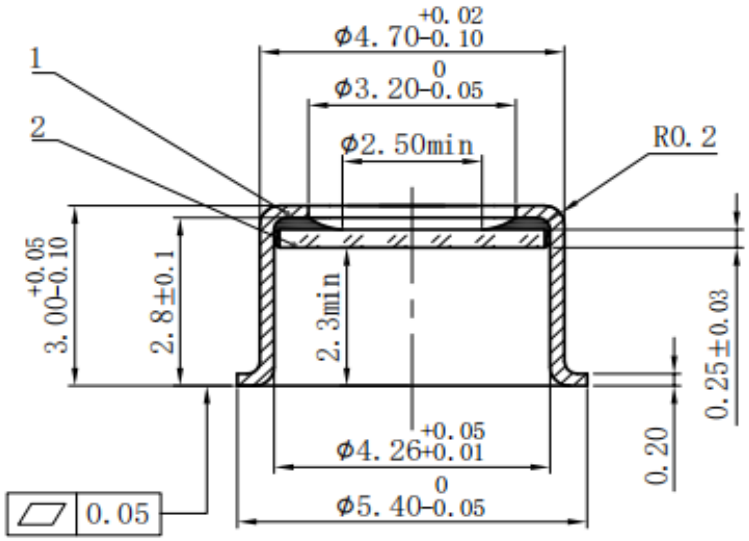
6.1 The products should be packed in a sturdy box. The box should meet fragile goods transport requirements.

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. Drawing No. : HP1004055B

HP1004055B



Notes:
1. Air tightness: leakage rate $<1\times10^{-8}$ Pa • m^3/s (He).
2. Optical surface appearance: the surface of the execution of the US military standard MIL-O-13830B S/D=60/40.
3. Solder: HFJD low temperature glass 1#.
4. Finish: Electro Ni 5~10um.
5. The materials and coatings are in accordance with ROHS requirements .

NO.	Figure No.	NAME	QTY	MATERIAL	REM
2	HP3004019A	TO52-CAP	1	4J50	
1	HP2004009A	TO52-WINDOW	1	Sapphire	

SIGN		CHANGE FILE NUM.	AUTOGRAPH	DATE
DESIGN			STD EXAM	
CHECK			TECH. EXAM	
CHECK				
APPROVAL				

PROJECTION	WEIGHT	SCALE
		10:1
COM PAGE	NO.	PAGE

晶鼎光电

CAP

HP1004055B