

Product Information Vol. L1

Inquiry and Contact...

Marketing Department

TEL: +81-45-441-8271 FAX: +81-45-441-6362

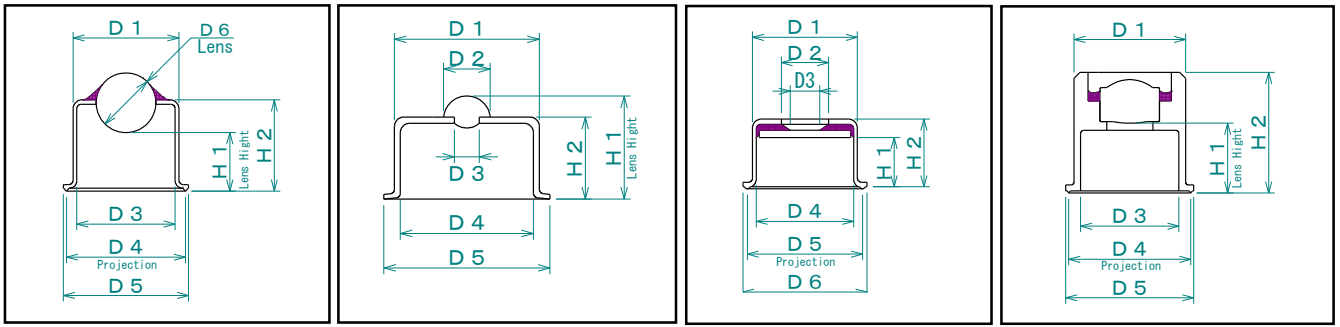
URL: http://www.yama-ph.co.jp/index_e.html (inquiry Form)

1 Outline

Lens caps and flat window caps are made for optoelectronic packaging with lenses or glass windows sealed to metal cans of various shape.

We propose the best optical designs and products in accordance with various requirements through the best choice of materials based on our technology.

Our products have gained the trust of customers through high quality products which can pass hard environmental tests of optoelectronics.



BALL LENS CAP

FUSED LENS CAP

FLAT WINDOW CAP

ASPHERICAL LENS CAP

The above pictures are schematic drawings of our products. Please kindly tell us every required dimension when you inquire about custom-designed caps. We also lineup various standard products and the detail dimensions are listed in the reverse side.

2 Features

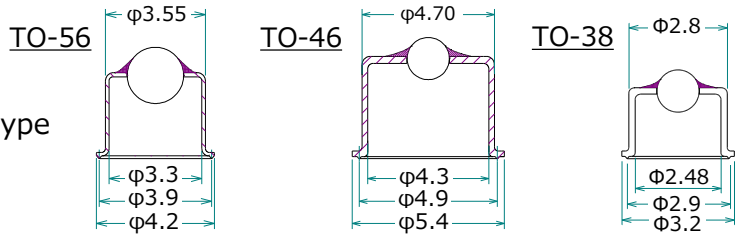
- Lens and Window
 - Type: Ball Lens, Fused Lens, Flat Glass Window, Aspherical Lens
 - Material: Glass
 - AR Coating: Design can be customized on your requests.
- Metal Shell
 - Shape: Standard or Custom Design
 - Material: Kovar, 50NiFe, Others
- Hermeticity
 - Helium Leak Rate: Less than $1 \times 10^{-9} \text{Pa m}^3/\text{s}$
- Eco-Friendly Products
 - We can provide RoHS and REACH compliant products.
 - Lead(Pb) free or others are available.

Yamamura Photonics have various standard products including TO-56, TO-46 and TO-52 such as the following our typical products. In addition, we can provide custom products to meet every requirement. Please feel free to contact us.

BALL LENS CAP

Shell Material: 50NiFe

Lens Materials: BK7, TAF3, High Index type



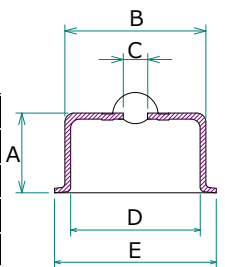
Cap type	Glass type	Typical index			Lens Diameter	AR Coating	Pb Free
		nd	1310nm	1550nm			
TO-56	BK7	1.51680	1.50358	1.50065	φ1.5	○	○
	TAF3	1.80420	1.77961	1.77553	φ2.0		
	High Index	2.00069	1.95038	1.94511			
TO-46	BK7	1.51680	1.50358	1.50065	φ1.5		
TO-38	TAF3	1.80420	1.77961	1.77553	φ1.2		
	High Index	2.00069	1.95038	1.94511			

FUSED LENS CAP

Shell Material: Kovar

Lens Material: Borosilicate glass

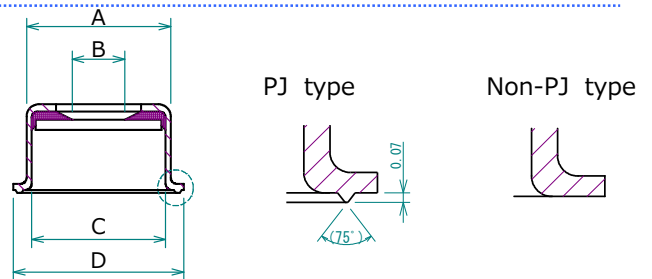
Cap type	Glass type	A	B	C <small>※effective diameter</small>	D	E	AR Coating
TO-52	Borosilicate glass	2.64	φ4.66	φ0.8	φ4.28	φ5.35	○
		3.1					
		3.5					
Mini-Fused		3.16 <small>※total height</small>	φ1.96	φ0.8	φ1.72	φ2.41	



FLAT WINDOW CAP

Shell Materials : Kovar, 50NiFe

Window Material : Borosilicate glass



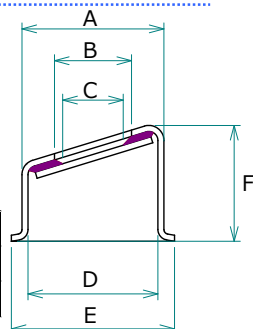
Cap type	A	B <small>※effective diameter</small>	C	D	PJ type	Non-PJ	AR Coating	Pb Free
Mini type	φ2.50	φ0.6min	φ2.20	φ3.08	○	-	○	○
TO-56	φ3.55	φ1.0min	φ3.30	φ4.20	○	-		
TO-46	φ4.72	φ2.0min	φ4.35	φ5.35	○	○		
φ9mm	φ6.64	φ2.5min	φ6.20	φ7.27	○	-		
TO-5	φ8.25	φ4.5min	φ7.85	φ9.10	-	○		

SLANTED WINDOW CAP

Shell Material : 50NiFe

Window Material : Borosilicate glass

Cap type	A	B	C <small>※effective diameter</small>	D	E	F	AR coating	Pb Free
H3.35	φ4.73	φ2.5	φ1.8min	4.34	5.35	3.35max	○	○
H3.9						3.9max		



This products information is subject to changed or updated without notice.