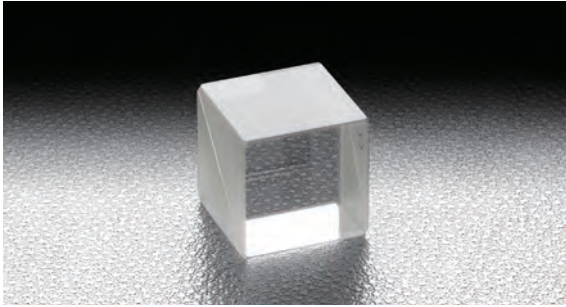
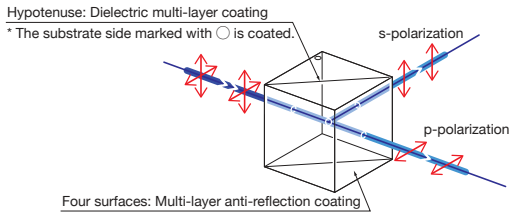


**Broadband Polarizing Beamsplitters provides wide band polarizing. Polarizing beamsplitters consist of two right angle prisms. One of them is coated with dielectric multi-layer polarizing coating on the hypotenuse face.**

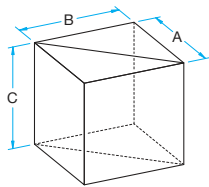
- Polarizing beamsplitters split the light entering at zero degrees into p-polarization as transmitted and s-polarization as reflected.
- Four surfaces of the cube are coated with multi-layer anti-reflection coatings.
- For cube beamsplitters, unlike plate beamsplitters, beam deviations of transmitted beams and ghosts rarely occur.



### Schematic



### Outline Drawing



● Tolerance  
 Length A·B±0.2  
 Height C±0.1

Specifications	
Material	BK7, SK2, SF15, Synthetic fused silica
Surface flatness of substrate	$\lambda/4$
Angular deviation of transmitted beam	$<10'$
Coating	Hypotenuse Surface: Dielectric multi-layer polarizing coating Four Surfaces: Narrowband multi-layer anti-reflection coating
Incident angle	$0^\circ$
Laser Damage Threshold	$0.3\text{J}/\text{cm}^2$ (Laser pulse with 10ns, repetition frequency 20Hz)
Surface Quality (Scratch-Dig)	20-10
Clear aperture	Circle inscribed in a square of 85% of the dimensions

### Guide

- ▶ Please contact our Sales Division for customized products. (Customized on size, wavelength etc.)
- ▶ There is also a high extinction ratio Glan-Thompson prism (GTPB/GTPC). [Reference](#) B094

### Attention

- ▶ Input beam from the prism on the side indicated by ○. When the light is incident from the side of the prism without mark, there is a possibility that the characteristics of the transmittance and extinction ratio will change.
- ▶ The surface flatness is the reflected wave front distortion of the surface before coating.
- ▶ Be sure to wear laser safety goggles when checking optical path and adjusting optical axis.

### Specifications

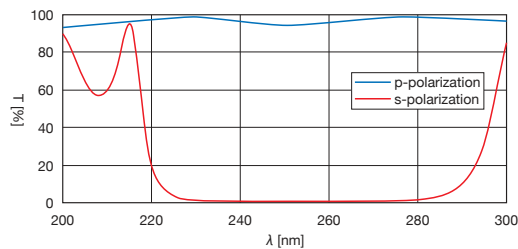
Part Number	Wavelength Range [nm]	A=B=C [mm]	Material	Transmittance of P polarized light [%]	Reflectance of S polarized light [%]	Extinction ratio of transmission* Ts : Tp
PBSW-10-250	235 - 265	10	Synthetic fused silica	>85	>90	1:100
PBSW-12.7-250	235 - 265	12.7	Synthetic fused silica	>85	>90	1:100
PBSW-15-250	235 - 265	15	Synthetic fused silica	>85	>90	1:100
PBSW-20-250	235 - 265	20	Synthetic fused silica	>85	>90	1:100
PBSW-10-350	330 - 370	10	Synthetic fused silica	>85	>95	1:100
PBSW-12.7-350	330 - 370	12.7	Synthetic fused silica	>85	>95	1:100
PBSW-15-350	330 - 370	15	Synthetic fused silica	>85	>95	1:100
PBSW-20-350	330 - 370	20	Synthetic fused silica	>85	>95	1:100
PBSW-10-550	450 - 650	10	BK7	>85	> Average 85	1:200
PBSW-12.7-550	450 - 650	12.7	BK7	>85	> Average 85	1:200
PBSW-15-550	450 - 650	15	BK7	>85	> Average 85	1:200
PBSW-20-550	450 - 650	20	BK7	>85	> Average 85	1:200
PBSW-10-800	750 - 850	10	BK7	>92	>97	1:200
PBSW-12.7-800	750 - 850	12.7	BK7	>92	>97	1:200
PBSW-15-800	750 - 850	15	BK7	>92	>97	1:200
PBSW-20-800	750 - 850	20	BK7	>92	>97	1:200
PBSW-10-3/7	380 - 750	10	SK2	> Average 92	> Average 95	1:500*
PBSW-12.7-3/7	380 - 750	12.7	SK2	> Average 92	> Average 95	1:500*
PBSW-15-3/7	380 - 750	15	SK2	> Average 92	> Average 95	1:500*
PBSW-20-3/7	380 - 750	20	SK2	> Average 92	> Average 95	1:500*
PBSW-10-4/10	450 - 1080	10	SF15	> Average 92	> Average 95	1:500*
PBSW-12.7-4/10	450 - 1080	12.7	SF15	> Average 92	> Average 95	1:500*
PBSW-15-4/10	450 - 1080	15	SF15	> Average 92	> Average 95	1:500*
PBSW-20-4/10	450 - 1080	20	SF15	> Average 92	> Average 95	1:500*
PBSW-10-10/20	1000 - 2000	10	SF15	> Average 94	> Average 95	1:300*
PBSW-12.7-10/20	1000 - 2000	12.7	SF15	> Average 94	> Average 95	1:300*
PBSW-15-10/20	1000 - 2000	15	SF15	> Average 94	> Average 95	1:300*
PBSW-20-10/20	1000 - 2000	20	SF15	> Average 94	> Average 95	1:300*

\* It is the average extinction ratio transmission in the wavelength range.

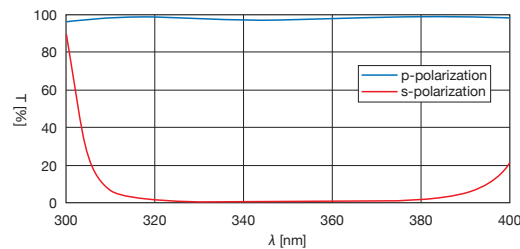
# Broadband Polarizing Beamsplitters | PBSW

Typical Transmittance Data T: Transmission

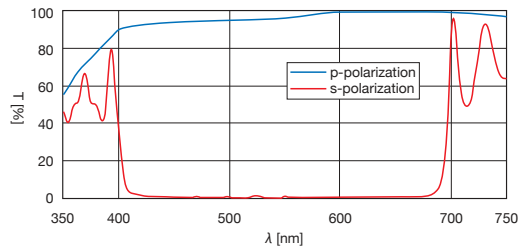
**PBSW-250**



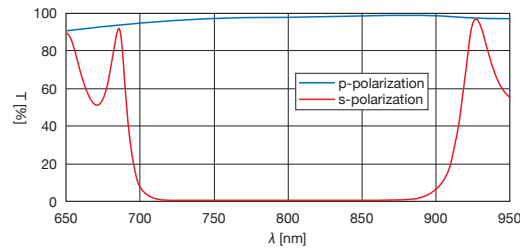
**PBSW-350**



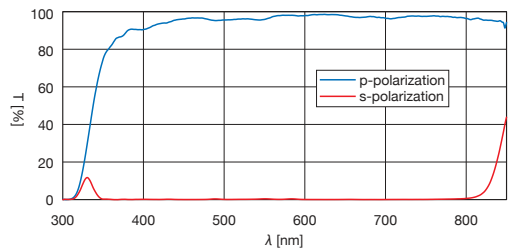
**PBSW-550**



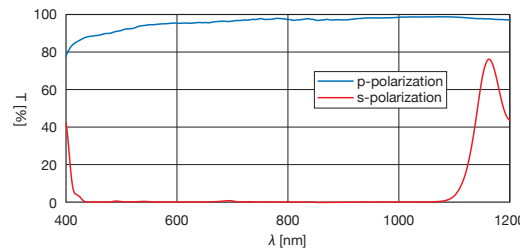
**PBSW-800**



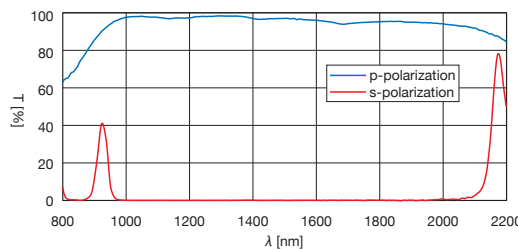
**PBSW-3/7**



**PBSW-4/10**



**PBSW-10/20**



**Compatible Optic Mounts**

PLH-25, -40 / KKD-25PHRO, -40PHRO / MHG12.7PAD + MHG-MP30-NL / MHG-20PAD + MHG-MP30-NL

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