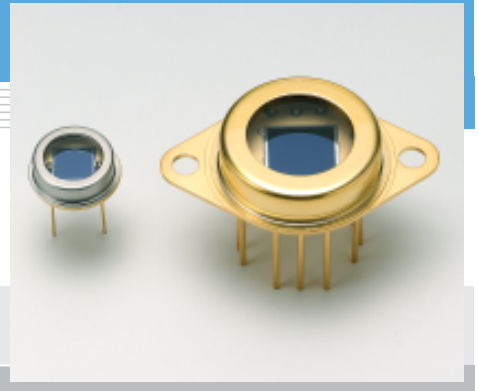


Si photodiode S9682, S9683

Highly reliable photodiode for VUV detection



S9682 and S9683 are Si photodiodes specifically designed to detect VUV (vacuum ultraviolet) radiation with high reliability. These photodiodes are hermetically sealed in a metal package with a quartz window. There is no outgassing from the inside of the package, eliminating the cause of decrease in VUV sensitivity.

Features

- Highly stable sensitivity and dark current against ArF excimer laser radiation ($\lambda=193$ nm)
- Hermetically sealed metal package with quartz window
- Large active area:
S9682: 5.8 × 5.8 mm (TO-8 metal package)
S9683: 10 × 10 mm (1 inch metal package)

Applications

- ArF excimer laser detection
- UV detection

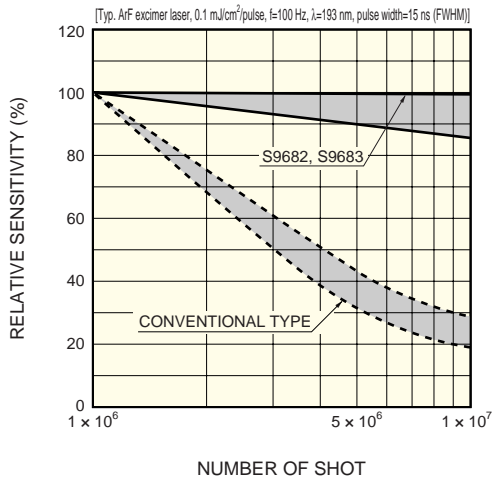
■ Absolute maximum ratings (Ta=25 °C)

Parameter	Symbol	Value	Unit
Reverse voltage	VR Max.	5	V
Operating temperature	Topr	-40 to +100	°C
Storage temperature	Tstg	-55 to +125	°C

■ Electrical and optical characteristics (Ta=25 °C)

Parameter	Symbol	Condition	S9682			S9683			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Spectral response range	λ		-	193 to 1000	-	-	193 to 1000	-	nm
Peak sensitivity wavelength	λ_p		-	760	-	-	760	-	nm
Photo sensitivity	S	$\lambda=193$ nm	45	60	-	45	60	-	mA/W
Dark current	ID	VR=10 mV	-	0.02	0.5	-	0.05	1.0	nA
Terminal capacitance	Ct	VR=0 V, f=10 kHz	-	1.0	-	-	4.0	-	nF
Rise time	tr	VR=0 V, RL=1 k Ω 10 to 90 %	-	2	-	-	9	-	μ s

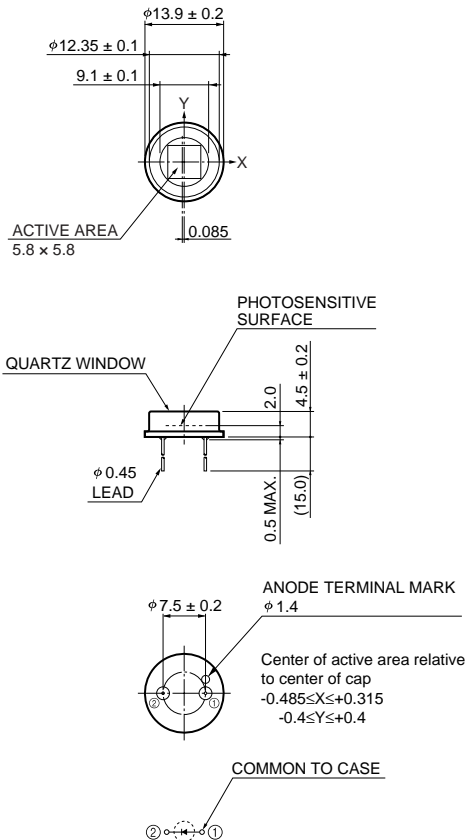
■ Variation in sensitivity due to VUV exposure



KSPDB0254EA

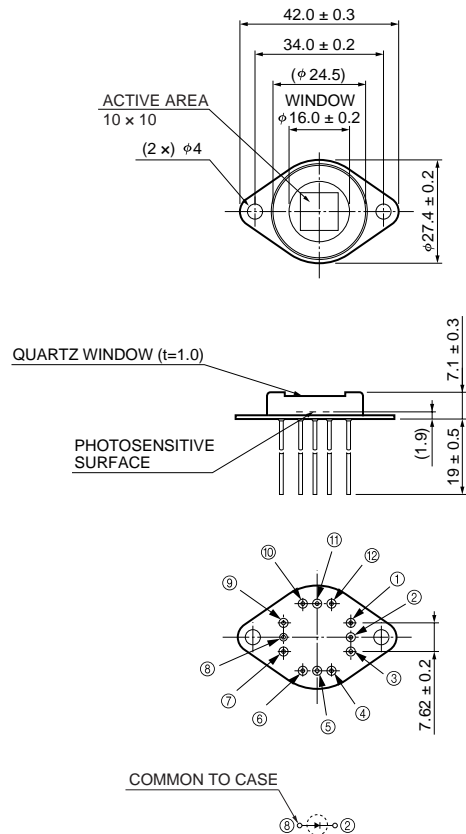
■ Dimensional outlines (unit: mm)

S9682



KSPDA0165EC

S9683



KSPDA0166EA

Information described in this material is current as of June, 2011. Product specifications are subject to change without prior notice due to improvements or other reasons. Before assembly into final products, please contact us for the delivery specification sheet to check the latest information.
Type numbers of products listed in the delivery specification sheets or supplied as samples may have a suffix "(X)" which means preliminary specifications or a suffix "(Z)" which means developmental specifications.
The product warranty is valid for one year after delivery and is limited to product repair or replacement for defects discovered and reported to us within that one year period. However, even if within the warranty period we accept absolutely no liability for any loss caused by natural disasters or improper product use.
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HAMAMATSU

HAMAMATSU PHOTONICS K.K., Solid State Division

1126-1 Ichino-cho, Higashi-ku, Hamamatsu City, 435-8558 Japan, Telephone: (81) 53-434-3311, Fax: (81) 53-434-5184, www.hamamatsu.com

U.S.A.: Hamamatsu Corporation: 360 Foothill Road, P.O.Box 6910, Bridgewater, N.J. 08807-0910, U.S.A., Telephone: (1) 908-231-0960, Fax: (1) 908-231-1218

Germany: Hamamatsu Photonics Deutschland GmbH: Arzbergerstr. 10, D-82211 Herrsching am Ammersee, Germany, Telephone: (49) 8152-375-0, Fax: (49) 8152-265-8

France: Hamamatsu Photonics France S.A.R.L.: 19, Rue du Saule Trapu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone: 33-(1) 69 53 71 00, Fax: 33-(1) 69 53 71 10

United Kingdom: Hamamatsu Photonics UK Limited: 2 Howard Court, 10 Tewin Road, Welwyn Garden City, Hertfordshire AL7 1BW, United Kingdom, Telephone: (44) 1707-294888, Fax: (44) 1707-325777

North Europe: Hamamatsu Photonics Norden AB: Smidesvägen 12, SE-171 41 Solna, Sweden, Telephone: (46) 8-509-031-00, Fax: (46) 8-509-031-01

Italy: Hamamatsu Photonics Italia S.R.L.: Strada della Moia, 1 int. 6, 20020 Arese, (Milano), Italy, Telephone: (39) 02-935-81-733, Fax: (39) 02-935-81-741