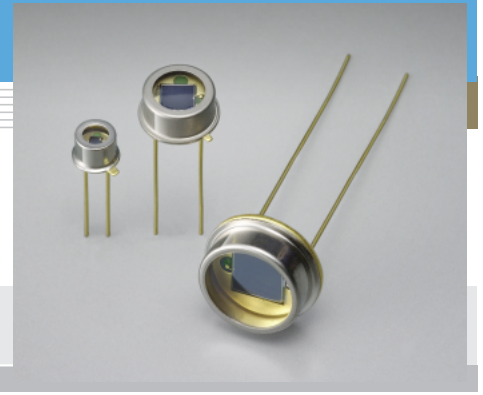


Si photodiode S1336 series

UV to near IR for precision photometry



Features

- High sensitivity
- Low capacitance
- High reliability

Applications

- Analytical instruments
- Optical measurement equipment

■ General ratings / Absolute maximum ratings

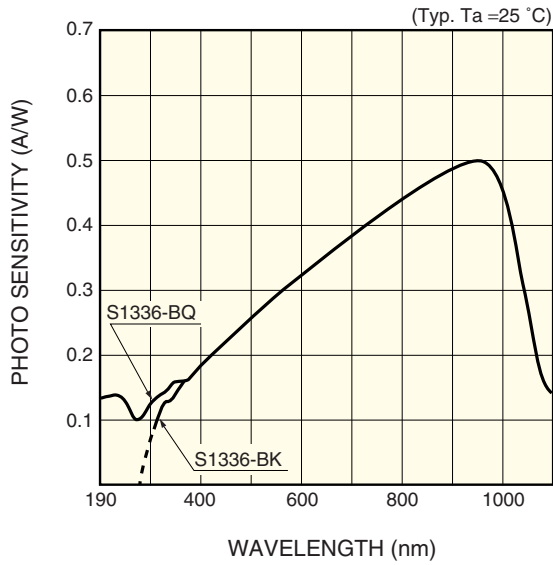
Type No.	Dimensional outline/ Window material *	Package (mm)	Active area size (mm)	Effective active area (mm ²)	Absolute maximum rating		
					Reverse voltage V _R Max. (V)	Operating temperature T _{opr} (°C)	Storage temperature T _{stg} (°C)
S1336-18BQ	①/Q	TO-18	1.1 × 1.1	1.2	5	-20 to +60	-55 to +80
S1336-18BK	①/K					-40 to +100	-55 to +125
S1336-5BQ	②/Q	TO-5	2.4 × 2.4	5.7		-20 to +60	-55 to +80
S1336-5BK	②/K					-40 to +100	-55 to +125
S1336-44BQ	②/Q					-20 to +60	-55 to +80
S1336-44BK	②/K					-40 to +100	-55 to +125
S1336-8BQ	③/Q	TO-8	5.8 × 5.8	33		-20 to +60	-55 to +80
S1336-8BK	③/K					-40 to +100	-55 to +125

■ Electrical and optical characteristics (Typ. T_a=25 °C, unless otherwise noted)

Type No.	Spectral response range λ (nm)	Peak sensitivity wavelength λ_p (nm)	Photo sensitivity S (A/W)			Short circuit current I _{sc} 100 lx		Dark current I _D V _R =10 mV Max. (pA)	Temp. coefficient of I _D T _{CID} (times/°C)	Rise time t _r V _R =0 V R _L =1 kΩ (μs)	Terminal capacitance C _t V _R =0 V f=10 kHz (pF)	Shunt resistance R _{sh} V _R =10 mV		NEP (W/Hz ^{1/2})												
			λ_p	200 nm		Min.	Typ.					Min.	Typ.													
				Min.	Typ.										(GΩ)	(GΩ)										
S1336-18BQ	190 to 1100	960	0.5	0.10	0.12	0.33	1	1.2	20	1.15	0.1	20	0.5	2	5.7 × 10 ⁻¹⁵											
S1336-18BK	320 to 1100															-	-	-	-							
S1336-5BQ	190 to 1100															0.10	0.12	4	5	30	0.2	65	0.3	1	8.1 × 10 ⁻¹⁵	
S1336-5BK	320 to 1100															-	-	-	-	-	-	-	-	-	-	-
S1336-44BQ	190 to 1100															0.10	0.12	8	10	50	0.5	150	0.2	0.6	1.0 × 10 ⁻¹⁴	
S1336-44BK	320 to 1100															-	-	-	-	-	-	-	-	-	-	-
S1336-8BQ	190 to 1100															0.10	0.12	22	28	100	1	380	0.1	0.4	1.3 × 10 ⁻¹⁴	
S1336-8BK	320 to 1100															-	-	-	-	-	-	-	-	-	-	-

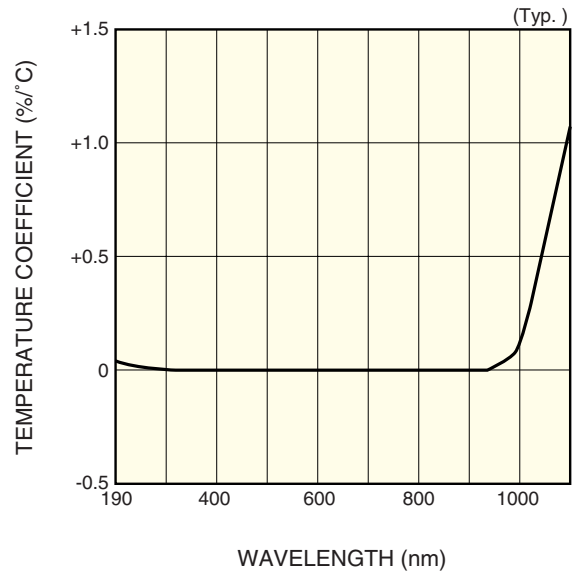
* Window material, K: borosilicate glass, Q: quartz glass

■ Spectral response



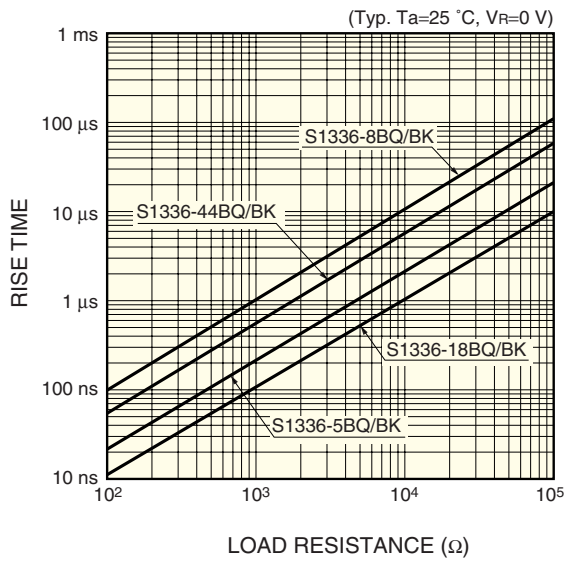
KSPDB0098EA

■ Photo sensitivity temperature characteristic



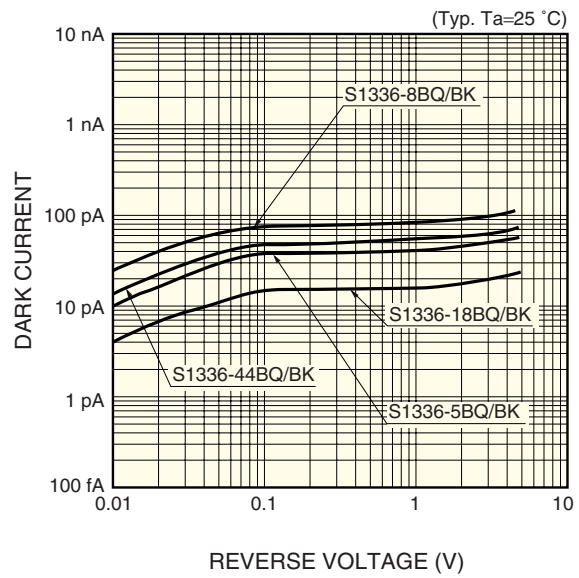
KSPDB0053EB

■ Rise time vs. load resistance



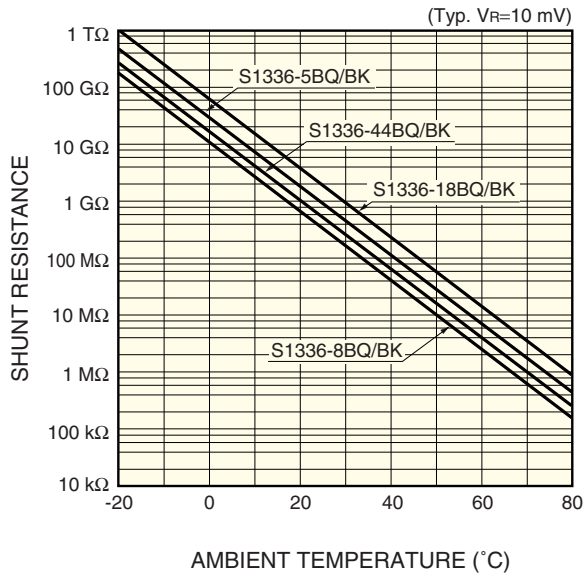
KSPDB0099EA

■ Dark current vs. reverse voltage



KSPDB0100EA

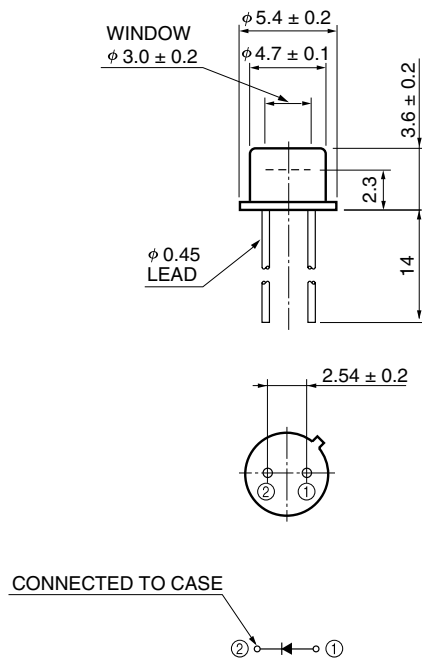
■ Shunt resistance vs. ambient temperature



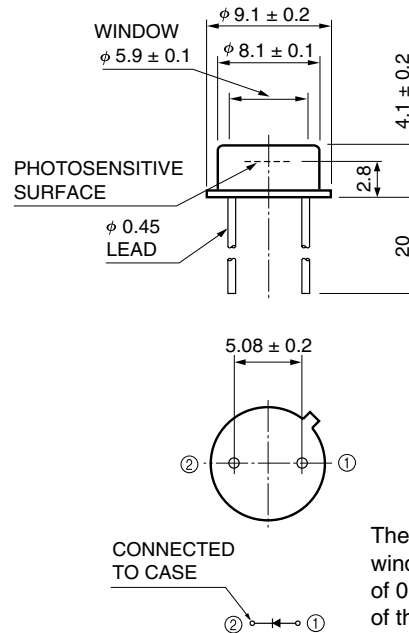
KSPDB0101EA

■ Dimensional outlines (unit: mm)

① S1336-18BQ/-18BK



② S1336-5BQ/K, S1336-44BQ/K

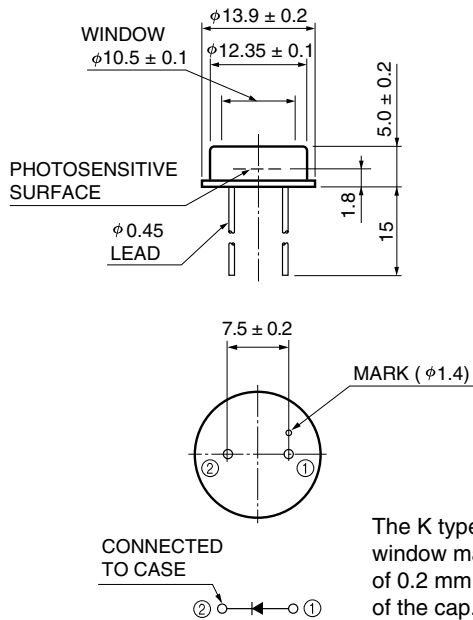


The K type borosilicate glass window may extend a maximum of 0.2 mm above the upper surface of the cap.

KSPDA0102EB

KSPDA0103EA

③ S1336-8BQ/-8BK



The K type borosilicate glass window may extend a maximum of 0.2 mm above the upper surface of the cap.

KSPDA0104EA

HAMAMATSU

Information furnished by HAMAMATSU is believed to be reliable. However, no responsibility is assumed for possible inaccuracies or omissions. Specifications are subject to change without notice. No patent rights are granted to any of the circuits described herein. ©2002 Hamamatsu Photonics K.K.

HAMAMATSU PHOTONICS K.K., Solid State Division

1126-1 Ichino-cho, Hamamatsu City, 435-8558 Japan, Telephone: (81) 053-434-3311, Fax: (81) 053-434-5184, <http://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) 08152-3750, Fax: (49) 08152-2658

France: Hamamatsu Photonics France S.A.R.L.: 8, 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/E, 20020 Arese, (Milano), Italy, Telephone: (39) 02-935-81-733, Fax: (39) 02-935-81-741

Cat. No. KSPD1022E03
Oct. 2002 DN