ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

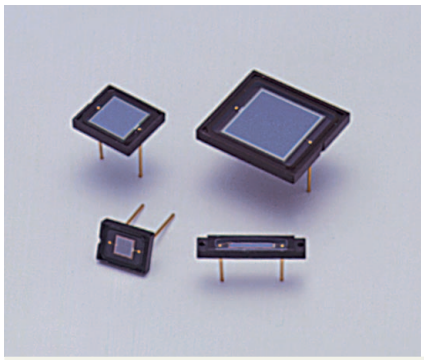
Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Hamamatsu S1227-66BQ-6E* at our website: ***Click HERE***

HAMAMATSU
PHOTON IS OUR BUSINESS

Si photodiodes



S1227 series

For UV to visible, precision photometry; suppressed IR sensitivity

These Si photodiodes have suppressed IR sensitivity. They are suitable for low-light-level detection in analysis and the like.

Features

- **High UV sensitivity (quartz window type): QE 75 % (λ=200 nm)**
- **Suppressed IR sensitivity**
- **Low dark current**

Applications

- **Analytical equipment**
- **Optical measurement equipment, etc.**

Structure / Absolute maximum ratings

Type no.	Window material	Package (mm)	Photosensitive area size (mm)	Effective photosensitive area (mm^2)	Absolute maximum ratings		
					Reverse voltage V_R max (V)	Operating temperature Topr (°C)	Storage temperature Tstg (°C)
S1227-16BQ*	Quatz	2.7 × 15	1.1 × 5.9	5.9	5	-20 to +60	-20 to +80
S1227-16BR	Resin potting						
S1227-33BQ*	Quatz	6 × 7.6	2.4 × 2.4	5.7			
S1227-33BR	Resin potting						
S1227-66BQ*	Quatz	8.9 × 10.1	5.8 × 5.8	33			
S1227-66BR	Resin potting						
S1227-1010BQ*	Quatz	15 × 16.5	10 × 10	100			
S1227-1010BR	Resin potting						

* Refer to "Precautions against UV light exposure."

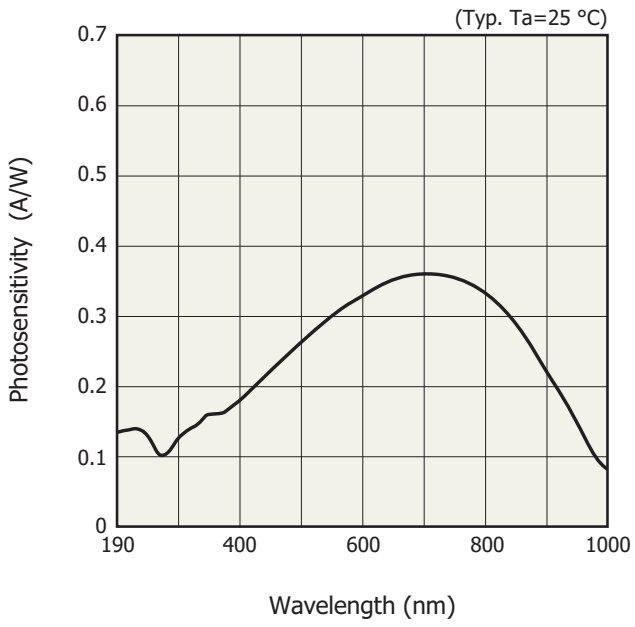
Note: Exceeding the absolute maximum ratings even momentarily may cause a drop in product quality. Always be sure to use the product within the absolute maximum ratings.

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

Type no.	Spectral response range λ (nm)	Peak sensitivity wavelength λp (nm)	Photosensitivity S (A/W)				Short circuit current Isc 100 lx		Dark current I_D V_R=10 mV Max. (pA)	Temp. coefficient T_{CID} (times/°C)	Rise time tr V_R=0 V R_L=1 kΩ (μs)	Terminal capacitance Ct V_R=0 V f=10 kHz (pF)	Shunt resistance Rsh V_R=10 mV (GΩ)		Noise equivalent power NEP (W/$Hz^{1/2}$)
			λp	200 nm		He-Ne Laser 633 nm	Min. (μA)	Typ. (μA)					Min.	Typ.	
				Min.	Typ.										
S1227-16BQ	190 to 1000	720	0.36	0.10	0.12	0.34	2.0	3.2	5	1.12	0.5	170	2	20	2.5×10^{-15}
S1227-16BR	340 to 1000		0.43	-	-	0.39	2.2	3.7							2.1×10^{-15}
S1227-33BQ	190 to 1000		0.36	0.10	0.12	0.34	2.0	3.0	5		0.5	160	2	20	2.5×10^{-15}
S1227-33BR	340 to 1000		0.43	-	-	0.39	2.2	3.7							2.1×10^{-15}
S1227-66BQ	190 to 1000		0.36	0.10	0.12	0.34	11	16	20		2	950	0.5	5	5.0×10^{-15}
S1227-66BR	340 to 1000		0.43	-	-	0.39	13	19							4.2×10^{-15}
S1227-1010BQ	190 to 1000		0.36	0.10	0.12	0.34	32	44	50		7	3000	0.2	2	8.0×10^{-15}
S1227-1010BR	340 to 1000		0.43	-	-	0.39	36	53							6.7×10^{-15}

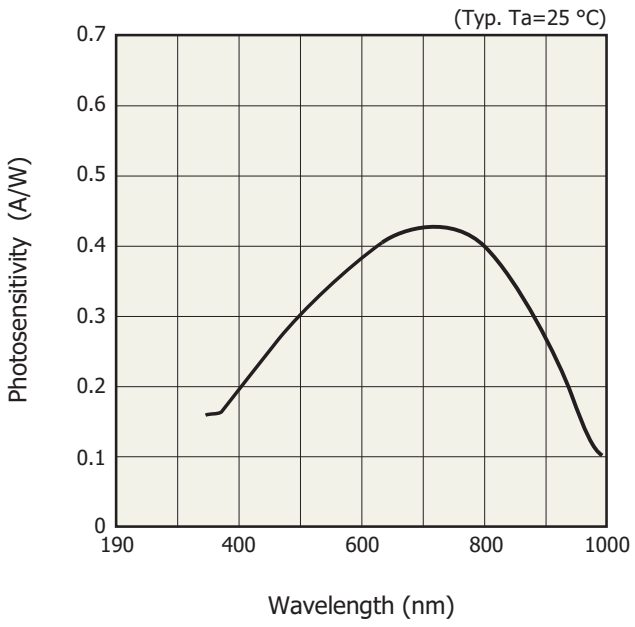
Spectral response

S1227-BQ series



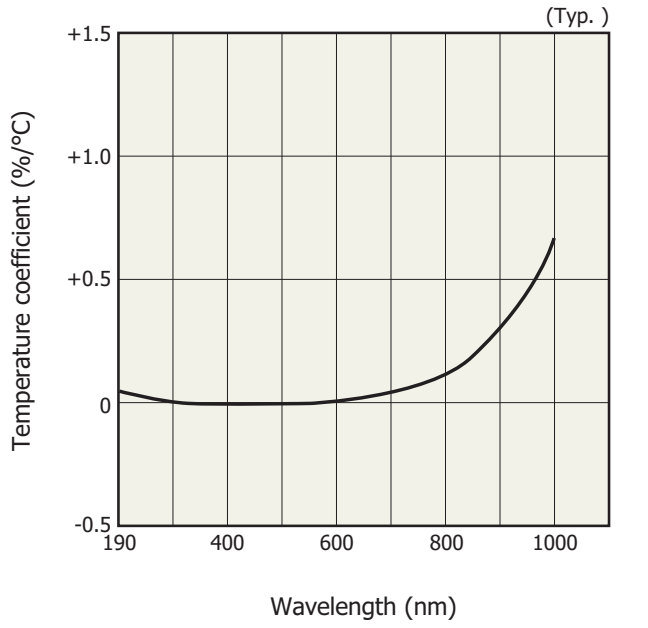
KSPDB0094EC

S1227-BR series



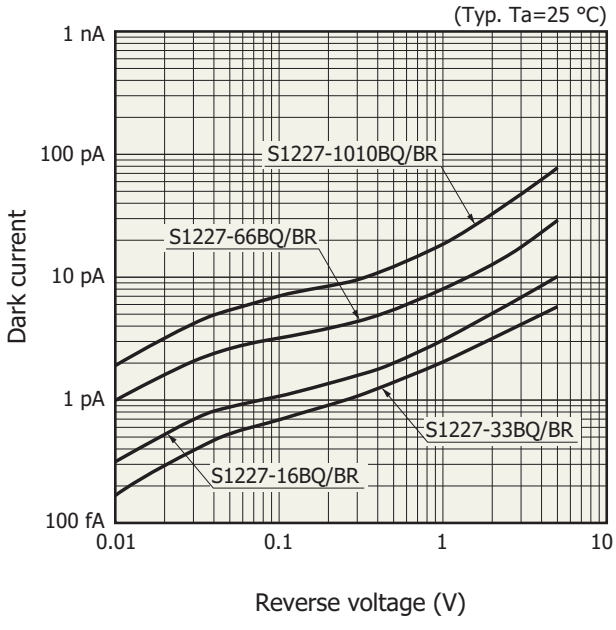
KSPDB0307EA

Photosensitivity temperature characteristics



KSPDB0030EB

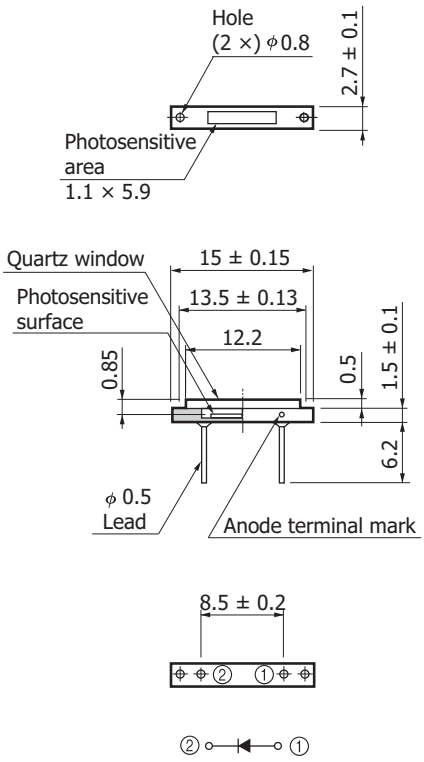
Dark current vs. reverse voltage



KSPDB0096EB

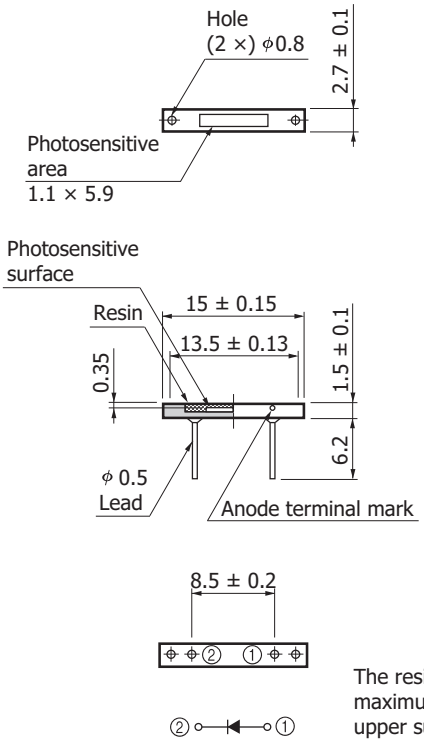
Dimensional outlines (unit: mm)

S1227-16BQ



KSPDA0094EB

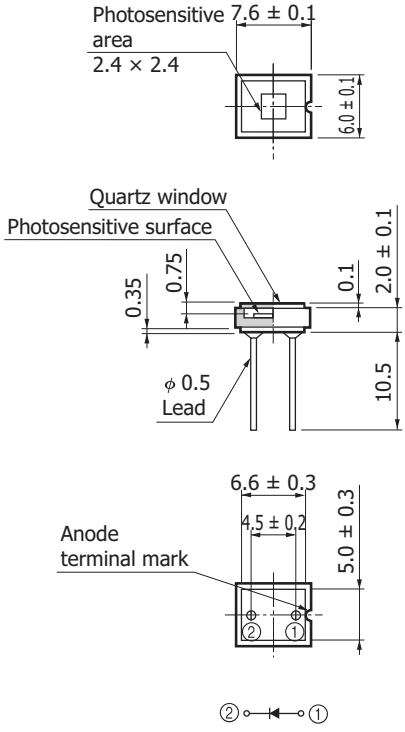
S1227-16BR



The resin potting may extend a maximum of 0.1 mm above the upper surface of the package.

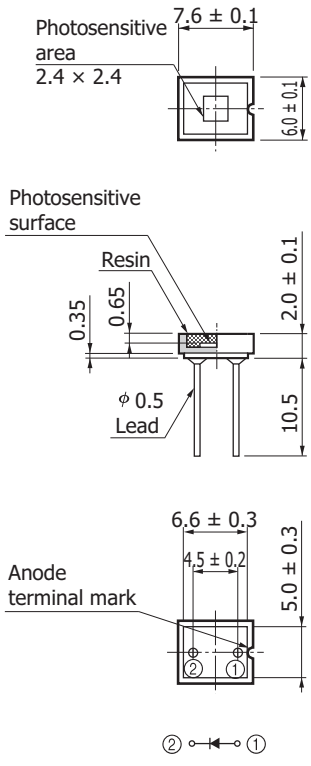
KSPDA0095EB

S1227-33BQ



KSPDA0096EB

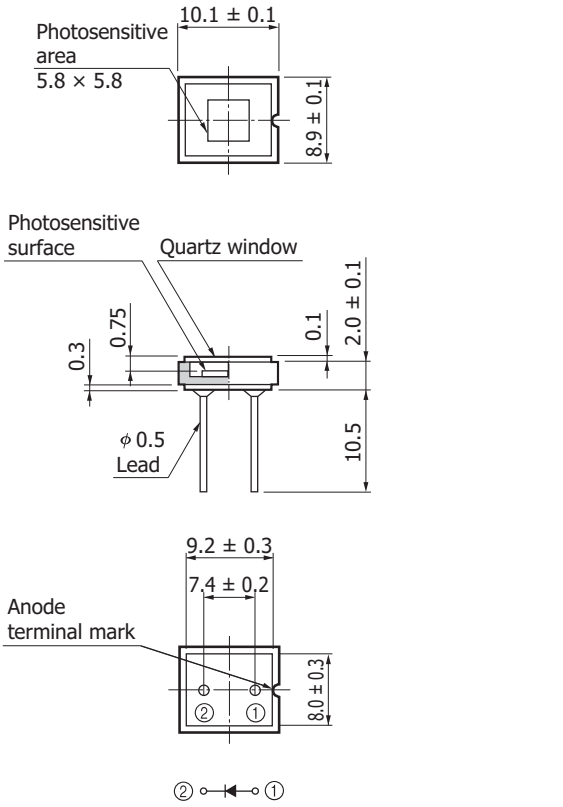
S1227-33BR



The resin potting may extend a maximum of 0.1 mm above the upper surface of the package.

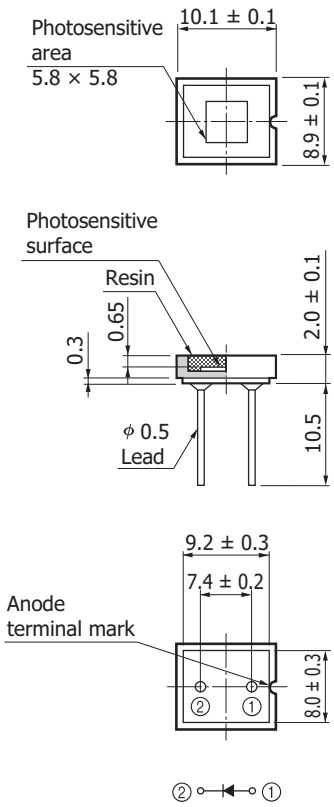
KSPDA0097EB

S1227-66BQ



KSPDA0098EB

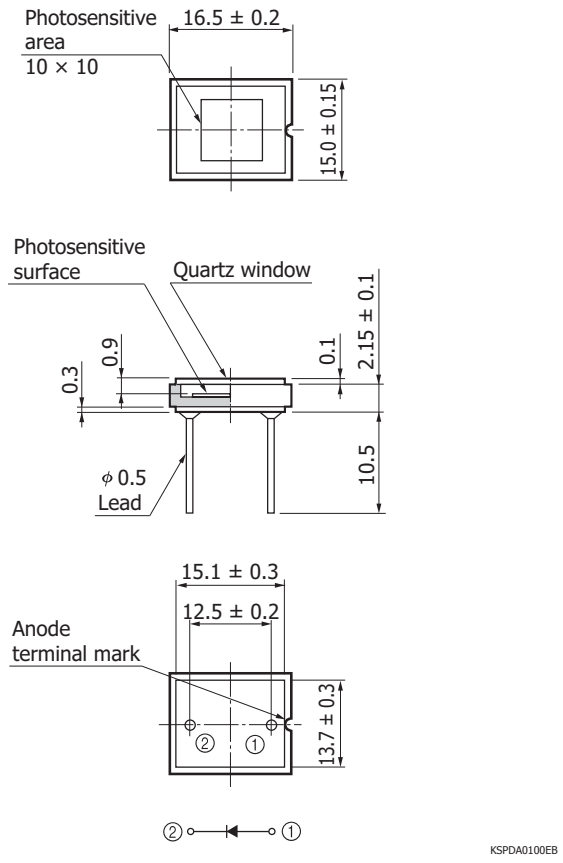
S1227-66BR



The resin potting may extend a maximum of 0.1 mm above the upper surface of the package.

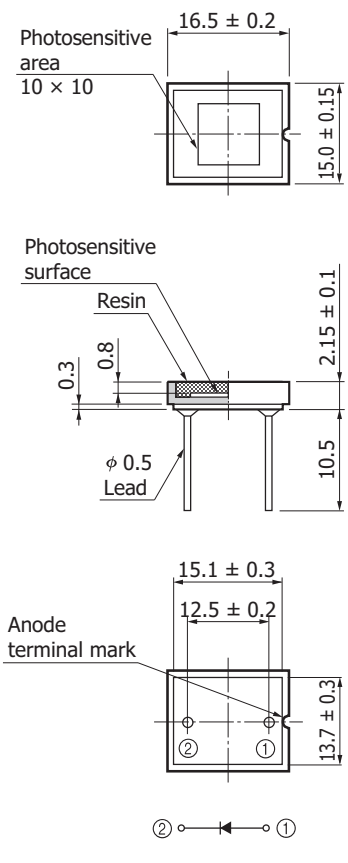
KSPDA0099EB

S1227-1010BQ



KSPDA0100EB

S1227-1010BR



The resin potting may extend a maximum of 0.1 mm above the upper surface of the package.

KSPDA0101EB

Precautions against UV light exposure

· When UV light irradiation is applied, the product characteristics may degrade. Such examples include degradation of the product's UV sensitivity and increase in dark current. This phenomenon varies depending on the irradiation level, irradiation intensity, usage time, and ambient environment and also varies depending on the product model. Before employing the product, we recommend that you check the tolerance under the ultraviolet light environment that the product will be used in.

· Exposure to UV light may cause the characteristics to degrade due to gas released from the resin bonding the product's component materials. As such, we recommend that you avoid applying UV light directly on the resin and apply it on only the inside of the photosensitive area by using an aperture or the like.

Related information

www.hamamatsu.com/sp/ssd/doc_en.html

■ Precautions

· Disclaimer
· Metal, ceramic, plastic package products

■ Technical information

· Si photodiode/Application circuit examples

Information described in this material is current as of October, 2015.
Product specifications are subject to change without prior notice due to improvements or other reasons. This document has been carefully prepared and the information contained is believed to be accurate. In rare cases, however, there may be inaccuracies such as text errors. Before using these products, always contact us for the delivery specification sheet to check the latest 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.
Copying or reprinting the contents described in this material in whole or in part is prohibited without our prior permission.

HAMAMATSU

www.hamamatsu.com

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
U.S.A.: Hamamatsu Corporation: 360 Foothill Road, Bridgewater, N.J. 08807, 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: Torshamnsgatan 35 16440 Kista, 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) 02-93581733, Fax: (39) 02-93581741
China: Hamamatsu Photonics (China) Co., Ltd.: B1201, Jiaming Center, No.27 Dongsanhuan Beilu, Chaoyang District, Beijing 100020, China, Telephone: (86) 10-6586-6006, Fax: (86) 10-6586-2866

Cat. No. KSPD1036E07 Oct. 2015 DN

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP