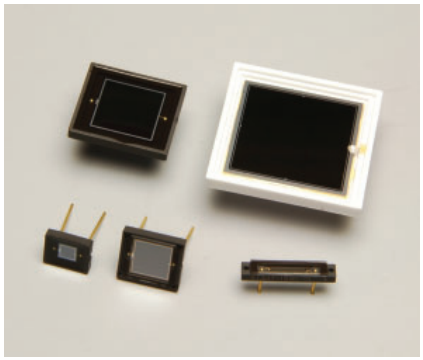
HAMAMATSU
PHOTON IS OUR BUSINESS

Si photodiodes



S1337 series

For UV to IR, precision photometry

Features

- High UV sensitivity: QE 75% (λ=200 nm)
- Low capacitance

Applications

- Analytical equipment
- Optical measurement equipment

Structure / Absolute maximum ratings

Type No.	Window material	Package (mm)	Photosensitive area size (mm)	Effective photosensitive area (mm²)	Absolute maximum ratings		
					Reverse voltage VR max (V)	Operating temperature Topr (°C)	Storage temperature Tstg (°C)
S1337-16BQ	Quartz	2.7 × 15	1.1 × 5.9	5.9	5	-20 to +60	-20 to +80
S1337-16BR	Resin potting						
S1337-33BQ	Quartz	6 × 7.6	2.4 × 2.4	5.7			
S1337-33BR	Resin potting						
S1337-66BQ	Quartz	8.9 × 10.1	5.8 × 5.8	33			
S1337-66BR	Resin potting						
S1337-1010BQ	Quartz	15 × 16.5	10 × 10	100			
S1337-1010BR	Resin potting						
S1337-21	Unsealed	25.5 × 25.5	18 × 18	324		0 to +60	0 to +80

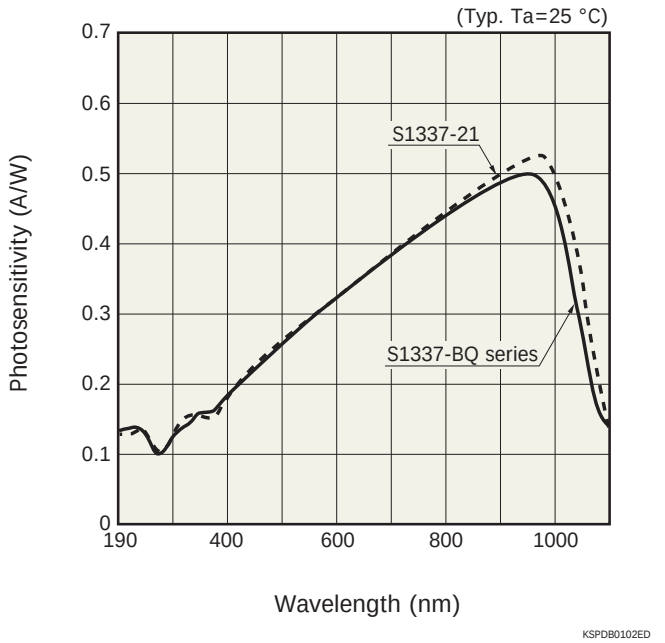
Note: Exceeding the absolute maximum ratings even momentarily may cause a drop in product quality. Always be sure to use the product within the absolute maximum ratings.

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 ID VR=10 mV Max. (pA)	Temp. coefficient of ID TCID (times/°C)	Rise time tr VR=0 V RL=1 kΩ (μs)	Terminal capacitance Ct VR=0 V f=10 kHz (pF)	Shunt resistance Rsh VR=10 mV		Noise equivalent power NEP (W/Hz^1/2)
			λp	200 nm		He-Ne laser 633 nm	GaAs LED 930 nm	Min. (μA)	Typ. (μA)					Min. (GΩ)	Typ. (GΩ)	
				Min.	Typ.											
S1337-16BQ	190 to 1100	960	0.5	0.10	0.12	0.33	0.5	4.0	5.3	50	1.15	0.2	65	0.2	0.6	1.0 × 10^-14
S1337-16BR	340 to 1100		0.62	-	-	0.4	0.6	4.4	6.2							8.4 × 10^-15
S1337-33BQ	190 to 1100		0.5	0.10	0.12	0.33	0.5	4.0	5.0	30		0.2	65	0.3	1	8.1 × 10^-15
S1337-33BR	340 to 1100		0.62	-	-	0.4	0.6	4.4	6.2							6.5 × 10^-15
S1337-66BQ	190 to 1100		0.5	0.10	0.12	0.33	0.5	20	27	100		1	380	0.1	0.4	1.3 × 10^-14
S1337-66BR	340 to 1100		0.62	-	-	0.4	0.6	22	33							1.0 × 10^-14
S1337-1010BQ	190 to 1100		0.5	0.10	0.12	0.33	0.5	65	78	200		3	1100	0.05	0.2	1.8 × 10^-14
S1337-1010BR	340 to 1100		0.62	-	-	0.4	0.6	70	95							1.5 × 10^-14
S1337-21	190 to 1100		0.52	0.10	0.13	0.34	0.51	200	250	500		8	4000	0.02	0.1	2.5 × 10^-14

Spectral response

S1337BQ series, S1337-21



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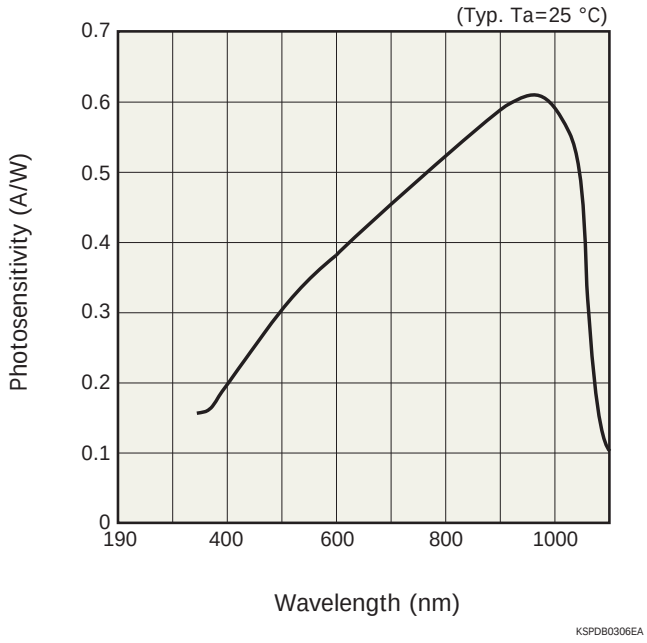
S1337-BR series



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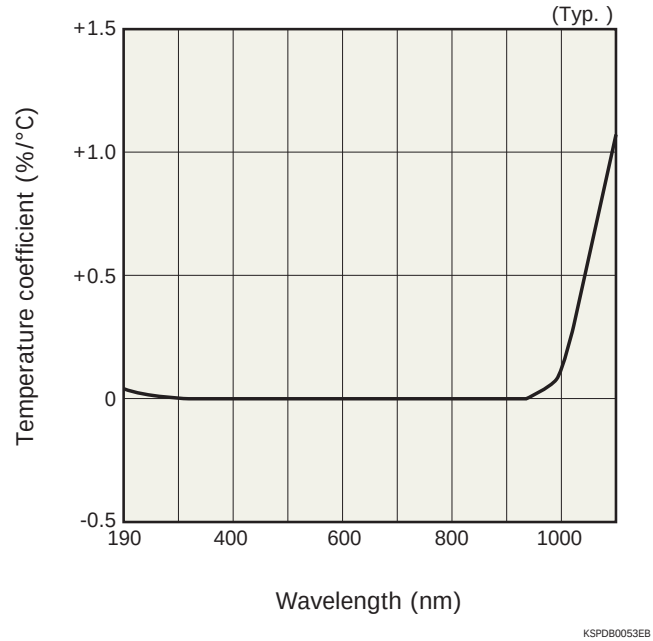
Photosensitivity temperature characteristics



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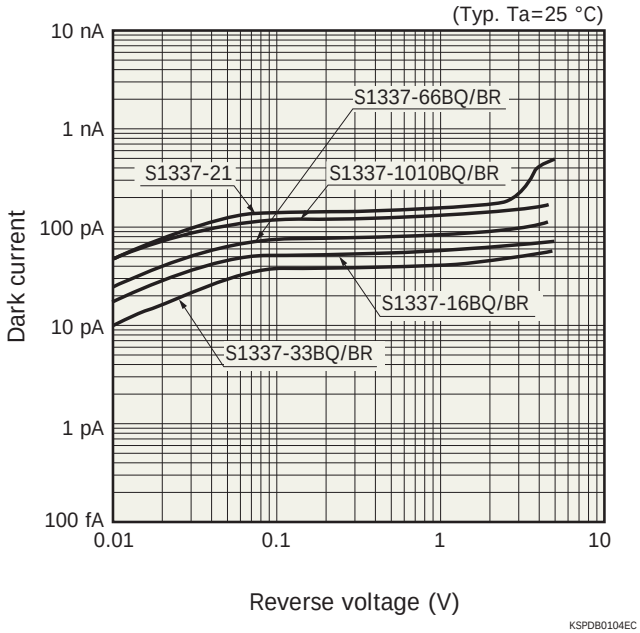
Dark current vs. reverse voltage



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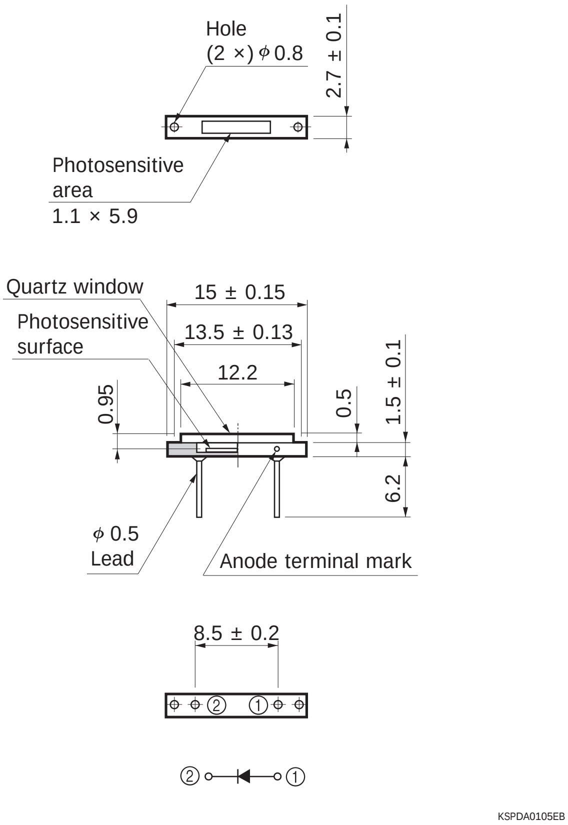
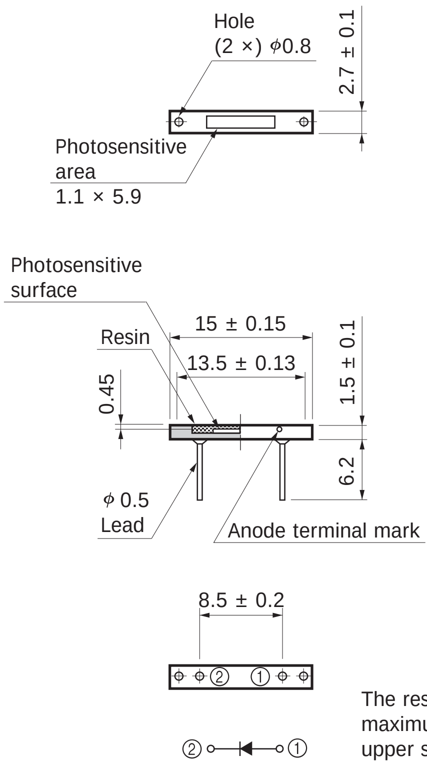
Dimensional outlines (unit: mm)

S1337-16BQ



S1337-16BR



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

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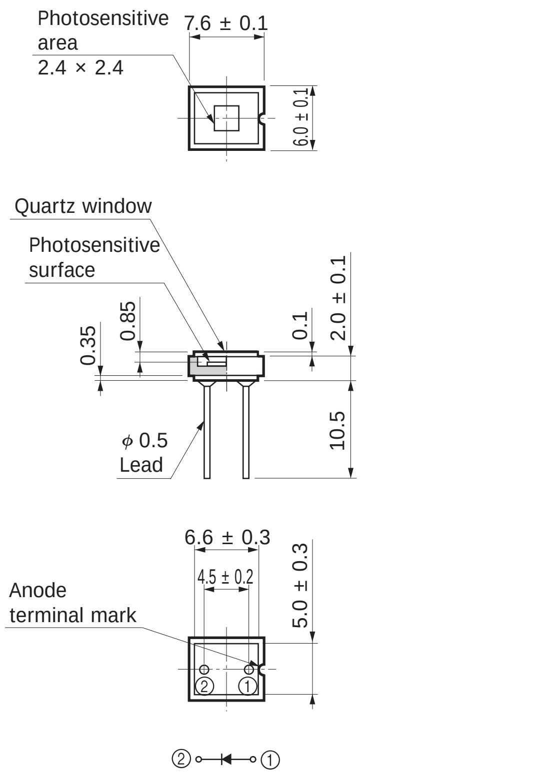
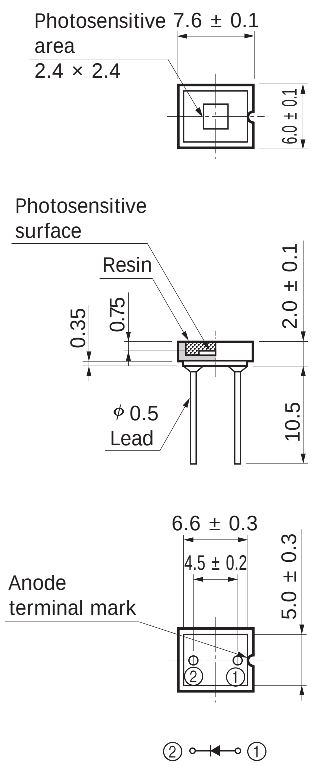
S1337-33BQ



S1337-33BR



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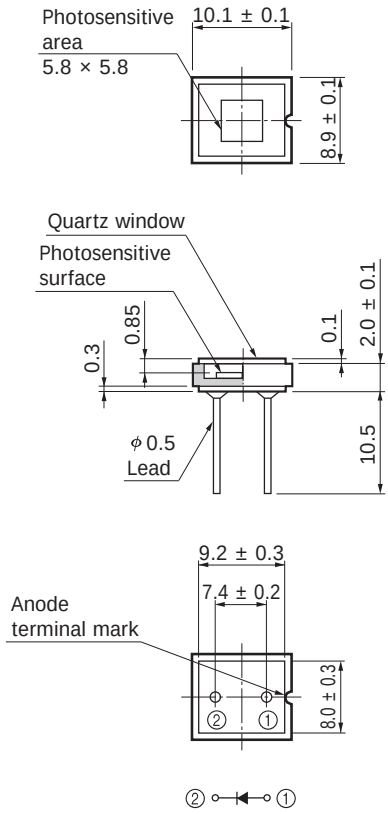
S1337-66BQ



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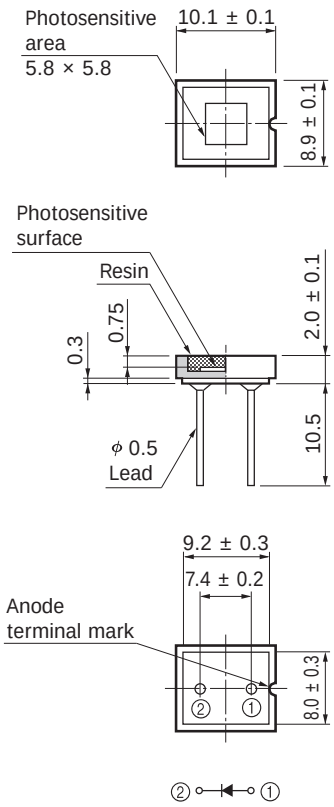
S1337-66BR



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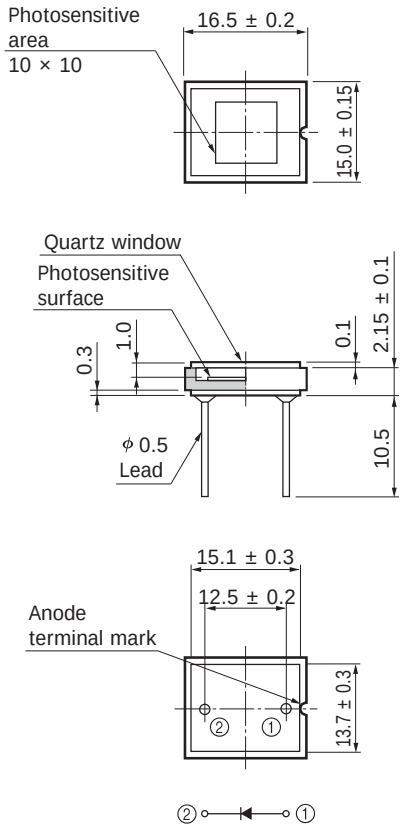
S1337-1010BQ



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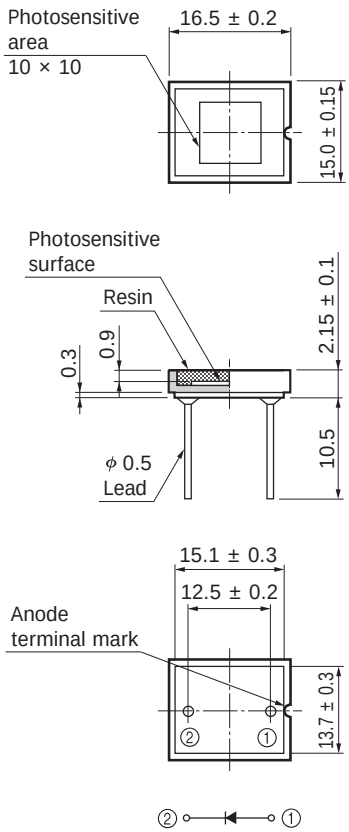
S1337-1010BR



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

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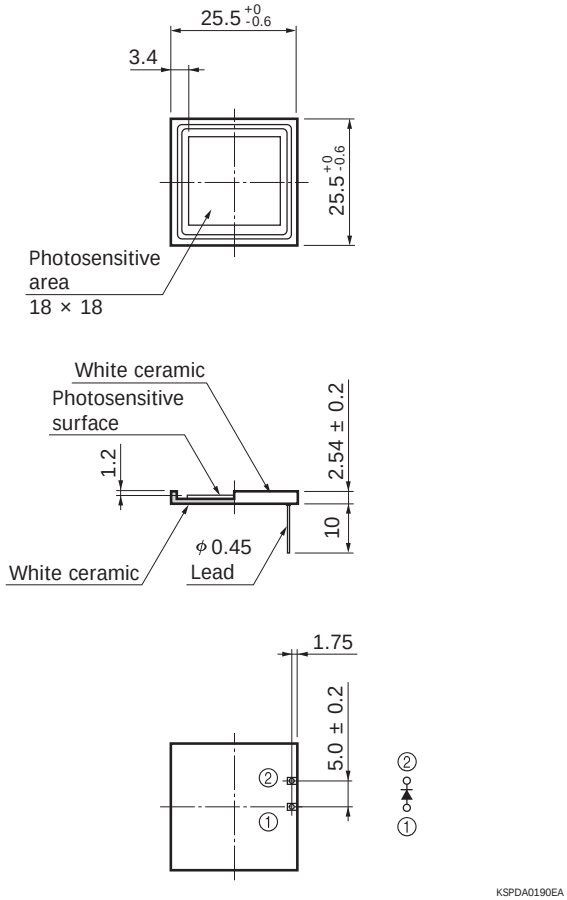
S1337-21



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Cat. No. KSPD1032E06 Nov. 2012 DN