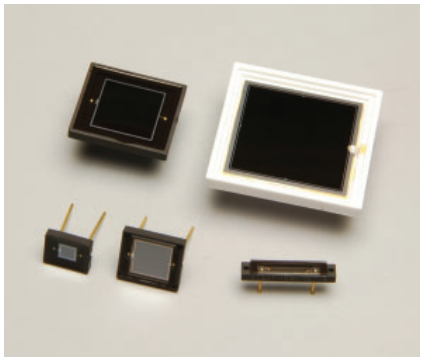
HAMAMATSU
PHOTON IS OUR BUSINESS

Si photodiode

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)	Active area size (mm)	Effective active area (mm²)	Absolute maximum ratings: Reverse voltage VR max (V)	Absolute maximum ratings: Operating temperature Topr (°C)	Absolute maximum ratings: 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: Absolute maximum ratings are the values that must not be exceeded at any time. If even one of the absolute maximum ratings is exceeded even for a moment, the product quality may be impaired. 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)	Photo sensitivity S (A/W): λp	Photo sensitivity S (A/W): 200 nm Min.	Photo sensitivity S (A/W): 200 nm Typ.	Photo sensitivity S (A/W): He-Ne laser 633 nm	Photo sensitivity S (A/W): GaAs LED 930 nm	Short circuit current Isc 100 lx: Min. (μA)	Short circuit current Isc 100 lx: Typ. (μA)	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: Min. (GΩ)	Shunt resistance Rsh VR=10 mV: Typ. (GΩ)	NEP (W/Hz^1/2)
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

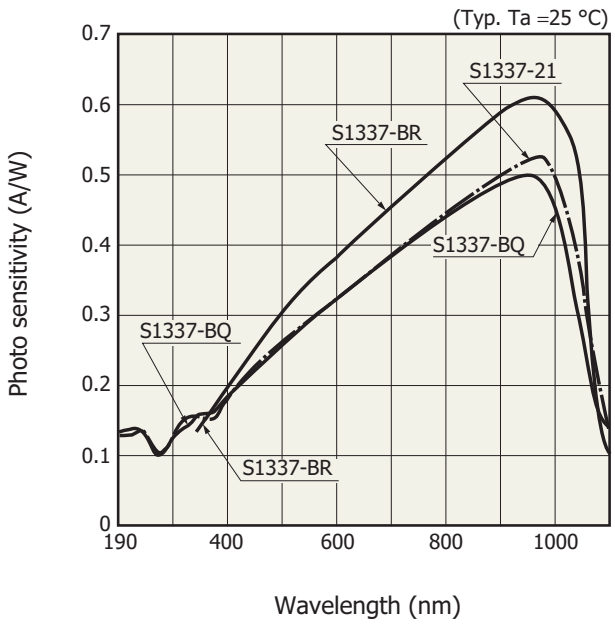


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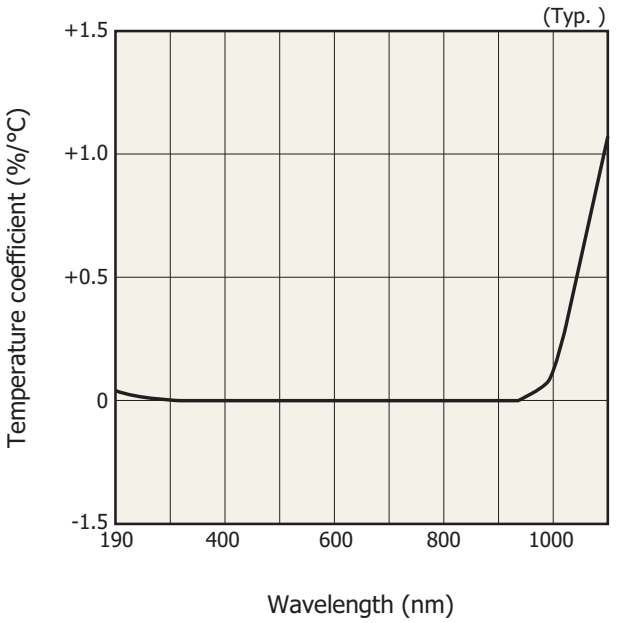
Photo sensitivity temperature characteristic



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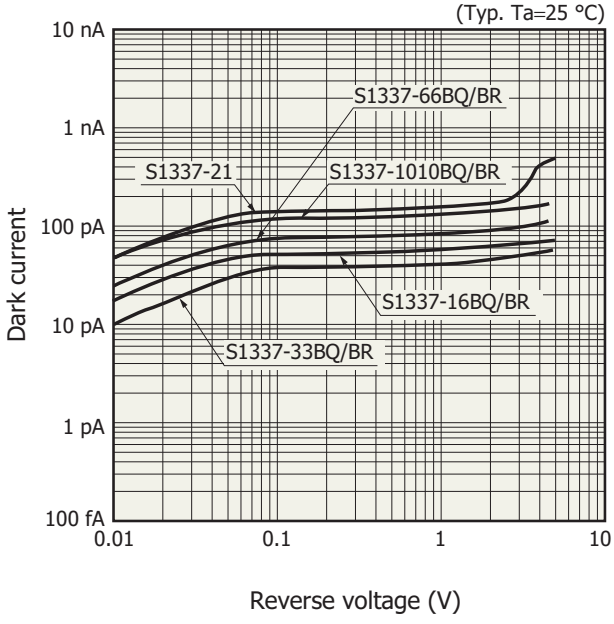
Dark current vs. reverse voltage



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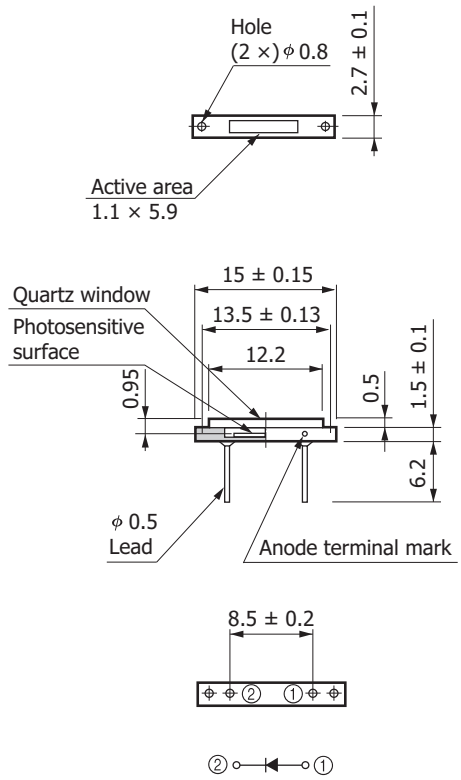
Dimensional outline (unit: mm)

S1337-16BQ



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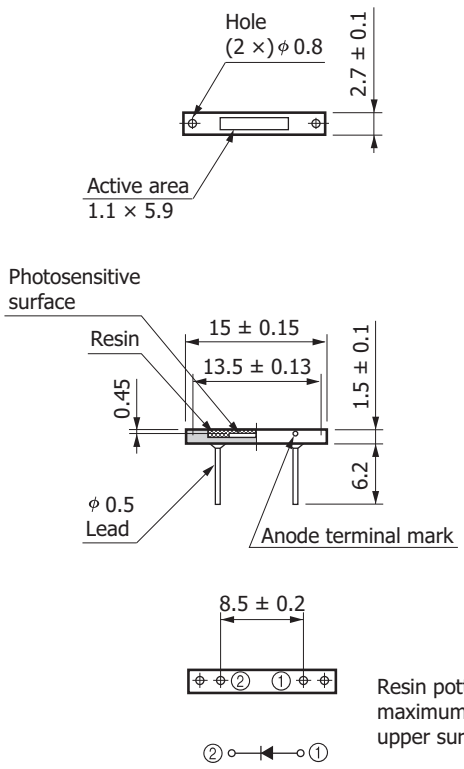
S1337-16BR



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

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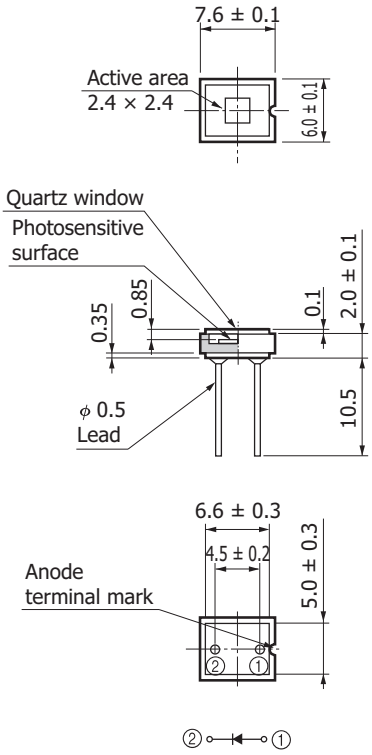
S1337-33BQ



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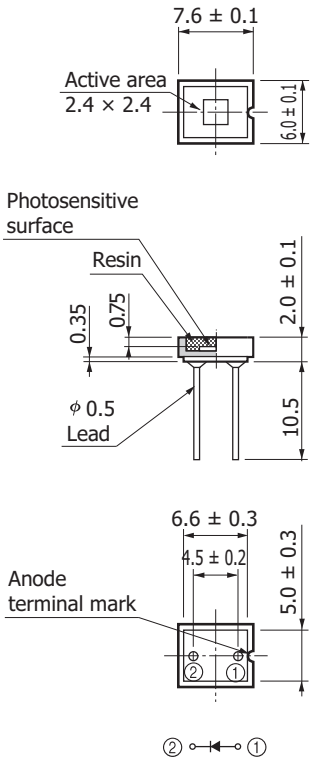
S1337-33BR



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

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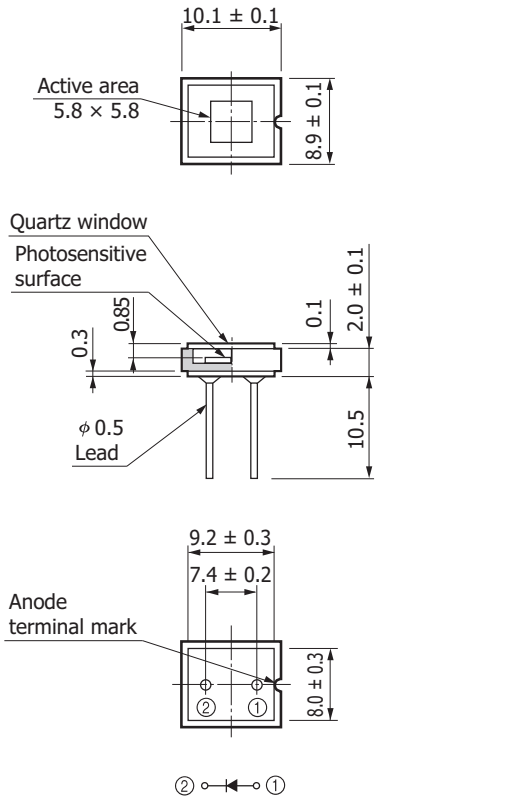
S1337-66BQ



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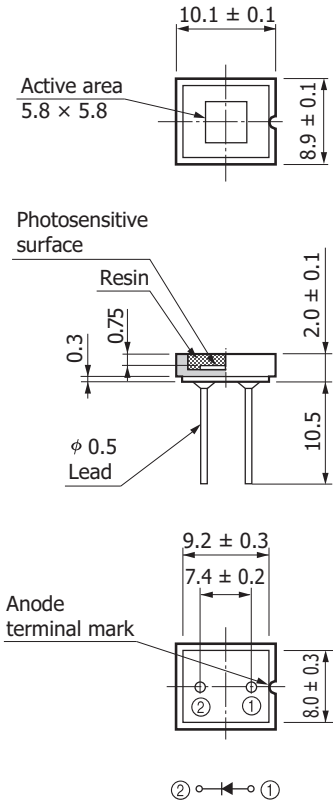
S1337-66BR



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

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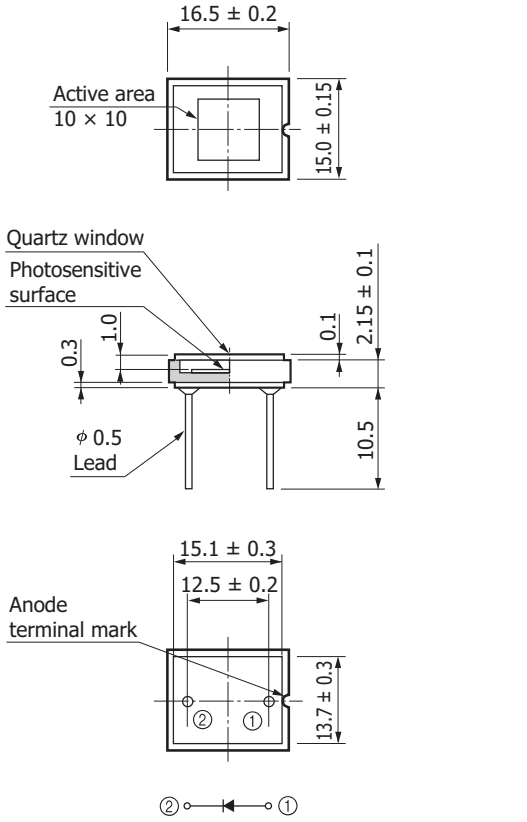
S1337-1010BQ



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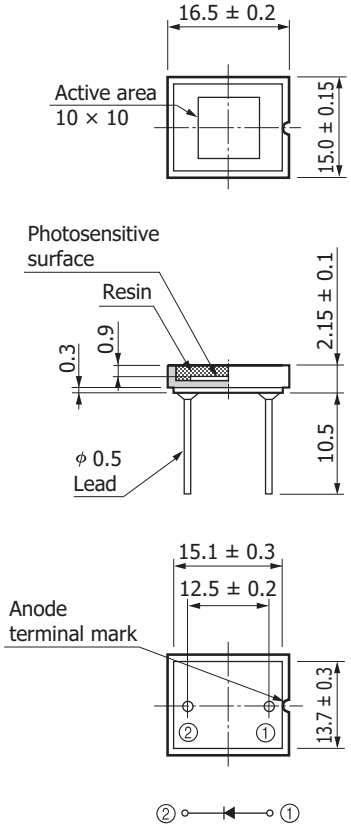
S1337-1010BR



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

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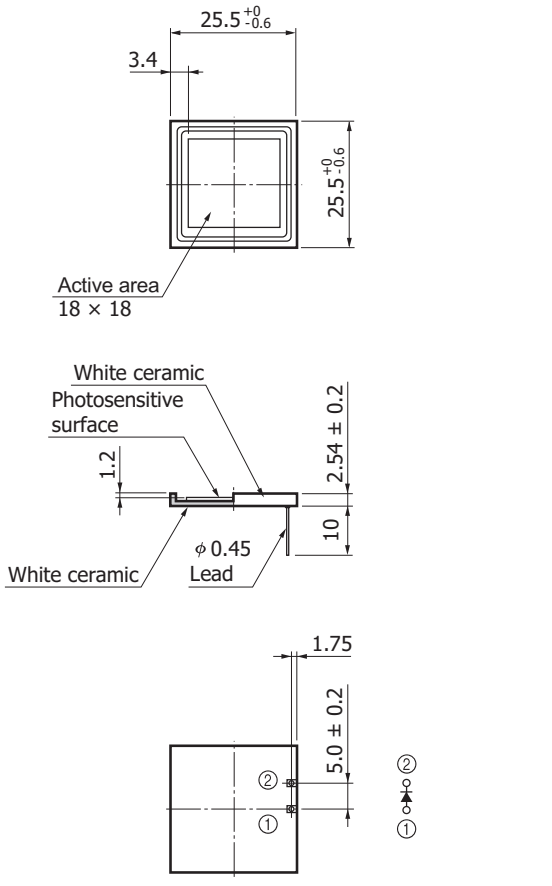
S1337-21



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Information described in this material is current as of October, 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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