

S1227 series

**For UV to visible, precision photometry;
suppressed IR sensitivity**

Features

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

Applications

- Analytical equipment
- Optical measurement equipment, etc.

Structure / Absolute maximum ratings

Type No.	Window material	Package (mm)	Active area size (mm)	Effective active area (mm ²)	Absolute maximum ratings		
					Reverse voltage V _R max (V)	Operating temperature T _{opr} (°C)	Storage temperature T _{stg} (°C)
S1227-16BQ	Quartz	2.7 × 15	1.1 × 5.9	5.9	5	-20 to +60	-20 to +80
S1227-16BR	Resin potting						
S1227-33BQ	Quartz	6 × 7.6	2.4 × 2.4	5.7			
S1227-33BR	Resin potting						
S1227-66BQ	Quartz	8.9 × 10.1	5.8 × 5.8	33			
S1227-66BR	Resin potting						
S1227-1010BQ	Quartz	15 × 16.5	10 × 10	100			
S1227-1010BR	Resin potting						

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. 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 T _{CD} (times/°C)	Rise time t _r V _R =0 V R _L =1 k Ω (μ s)	Terminal capacitance C _t V _R =0 V f=10 kHz (pF)	Shunt resistance R _{sh} V _R =10 mV (G Ω)		NEP (W/Hz ^{1/2})
			λ_p	200 nm		He-Ne Laser 633 nm	Min. (μ A)	Typ. (μ A)					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	1.12	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	1.12	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	1.12	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

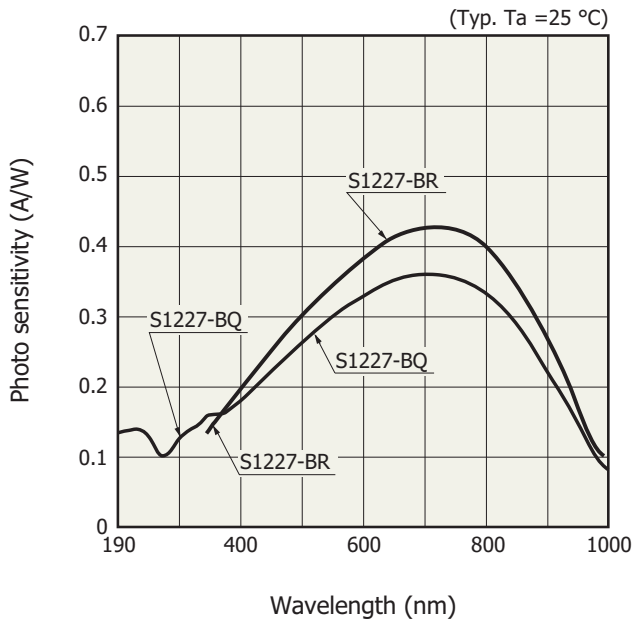
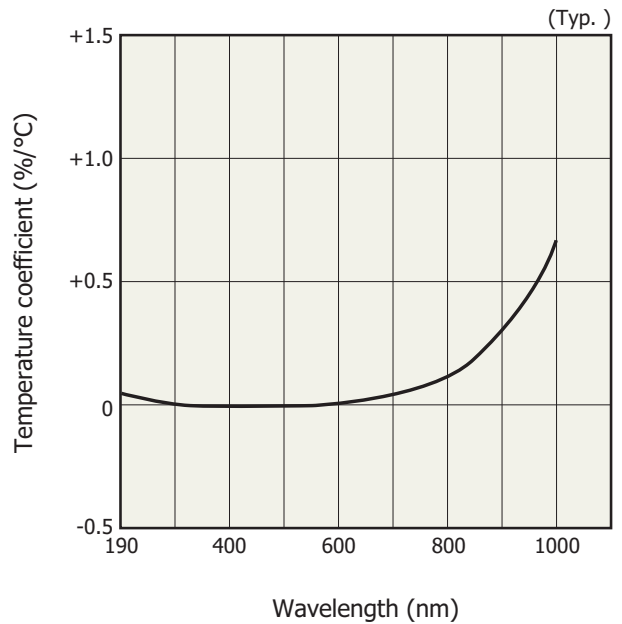
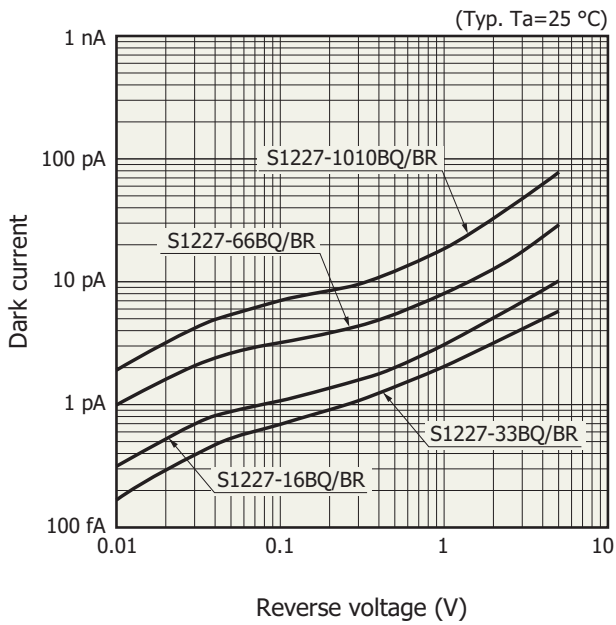


Photo sensitivity temperature characteristic

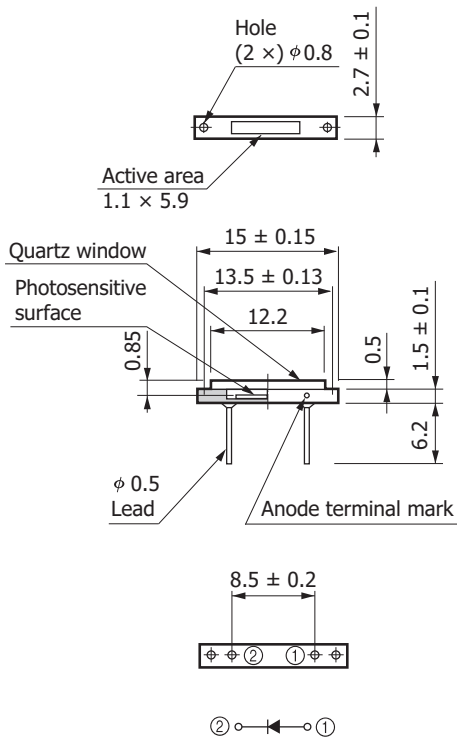


Dark current vs. reverse voltage



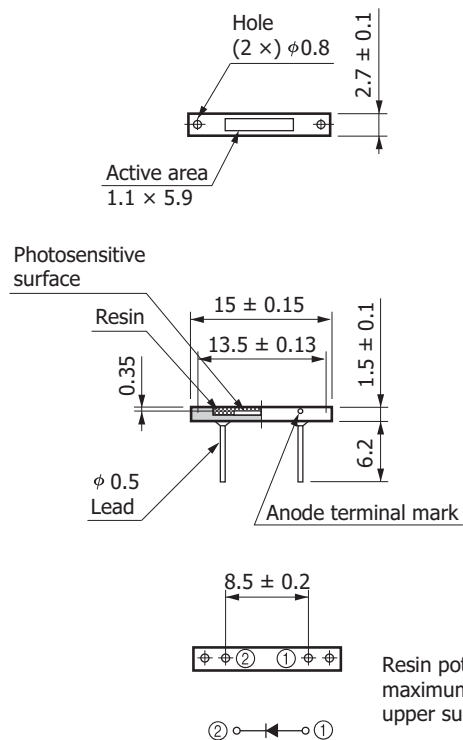
Dimensional outline (unit: mm)

S1227-16BQ



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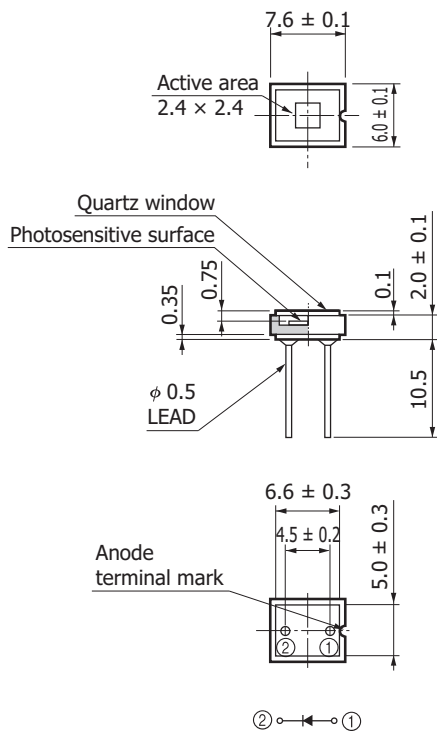
S1227-16BR



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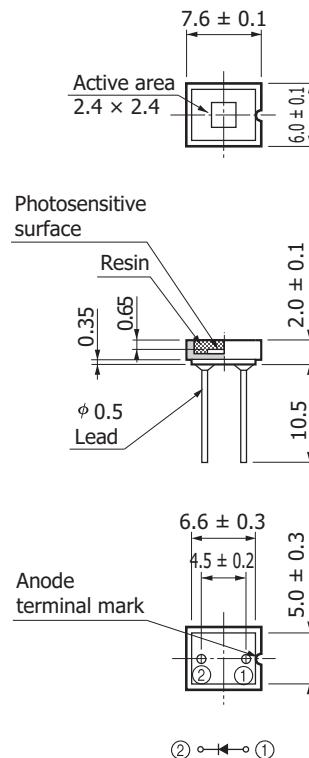
Resin potting may extend a maximum of 0.1 mm above the upper surface of the package.

S1227-33BQ



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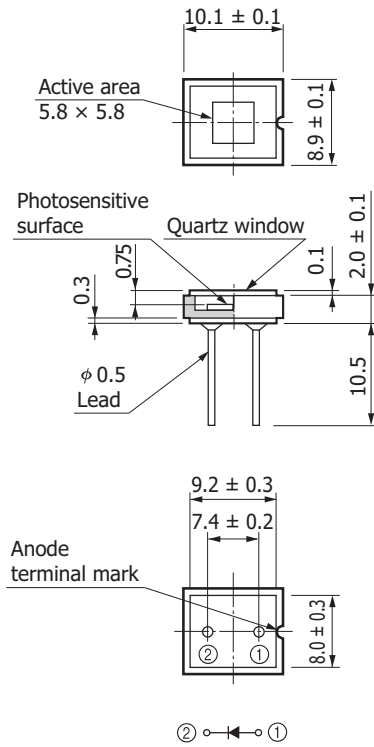
S1227-33BR



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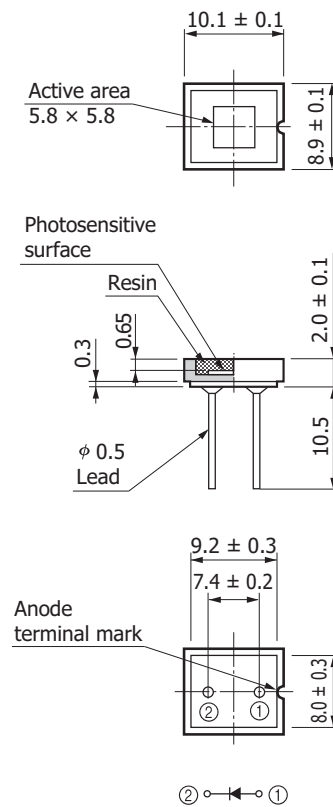
Resin potting may extend a maximum of 0.1 mm above the upper surface of the package.

S1227-66BQ



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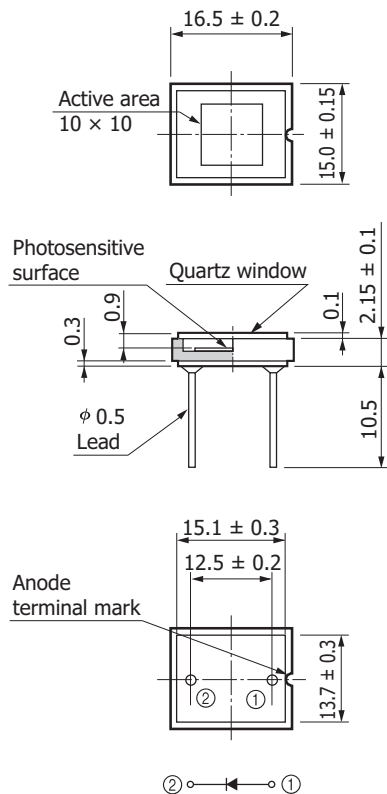
S1227-66BR



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

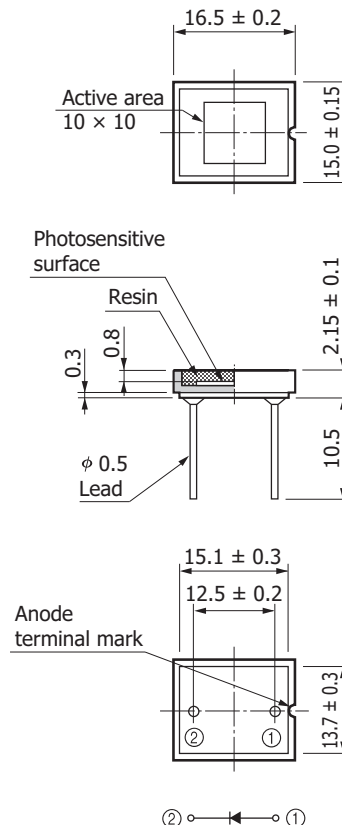
KSPDA0099EB

S1227-1010BQ



KSPDA0100EB

S1227-1010BR



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

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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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