

Si photodiode S1337 series

For UV to IR, precision photometry

Features

- High UV sensitivity: QE 75 % ($\lambda=200$ nm)
- Low capacitance

Applications

- Analytical equipment
- Optical measurement equipment

■ General ratings / Absolute maximum ratings

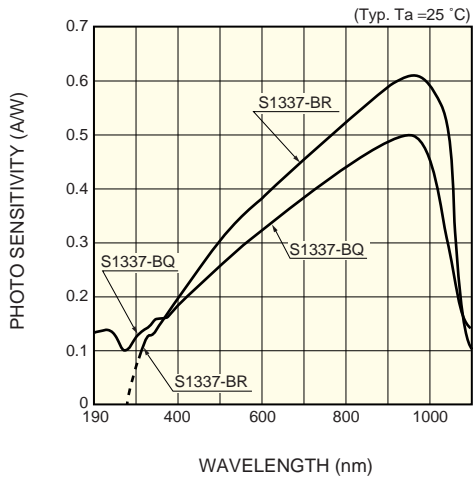
Type No.	Dimensional outline/ Window material *	Package (mm)	Active area size (mm)	Effective active area (mm ²)	Absolute maximum ratings		
					Reverse voltage VR Max. (V)	Operating temperature Topr (°C)	Storage temperature Tstg (°C)
S1337-16BQ	①/Q	2.7 × 15	1.1 × 5.9	5.9	5	-20 to +60	-20 to +80
S1337-16BR	②/R						
S1337-33BQ	③/Q	6 × 7.6	2.4 × 2.4	5.7			
S1337-33BR	④/R						
S1337-66BQ	⑤/Q	8.9 × 10.1	5.8 × 5.8	33			
S1337-66BR	⑥/R						
S1337-1010BQ	⑦/Q	15 × 16.5	10 × 10	100			
S1337-1010BR	⑧/R						

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

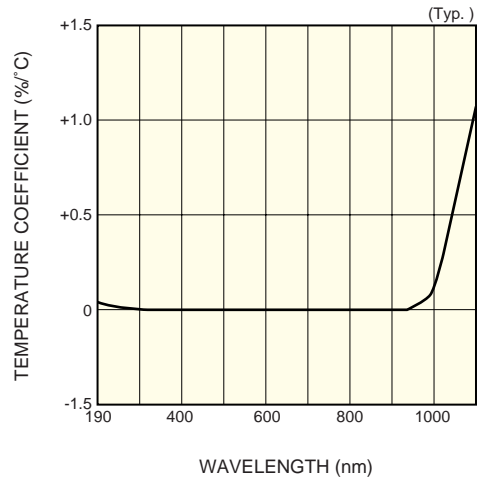
Type No.	Spectral response range λ (nm)	Peak sensitivity wavelength λ_p (nm)	Photo sensitivity S (A/W)					Short circuit current Isc 100 lx		Dark current ID VR=10 mV Max. (pA)	Temp. coefficient of ID TCID (times/°C)	Rise time tr VR=0 V RL=1 kΩ (μs)	Terminal capacitance Ct VR=0 V f=10 kHz (pF)	Shunt resistance Rsh VR=10 mV		NEP (W/Hz ^{1/2})				
			λ_p	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	1.15	0.2	65	0.2	0.6	1.0 × 10 ⁻¹⁴					
S1337-16BR	320 to 1100		0.62	-	-	0.4	0.6	4.4	6.2						50	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	320 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	320 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	320 to 1100		0.62	-	-	0.4	0.6	70	95											1.5 × 10 ⁻¹⁴

* Window material Q: quartz glass, R: resin coating

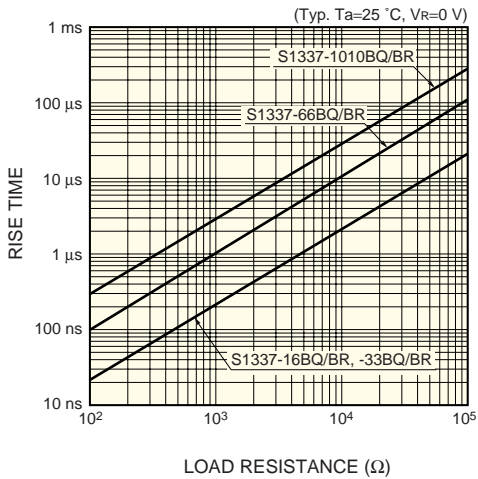
■ Spectral response



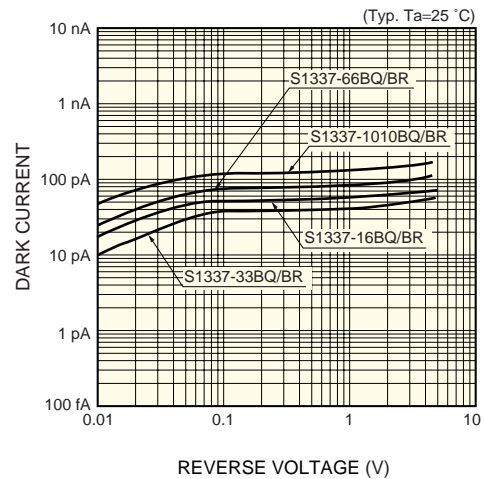
■ Photo sensitivity temperature characteristic



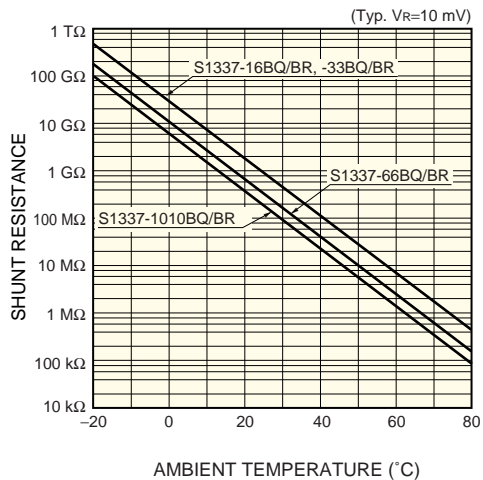
■ Rise time vs. load resistance



■ Dark current vs. reverse voltage

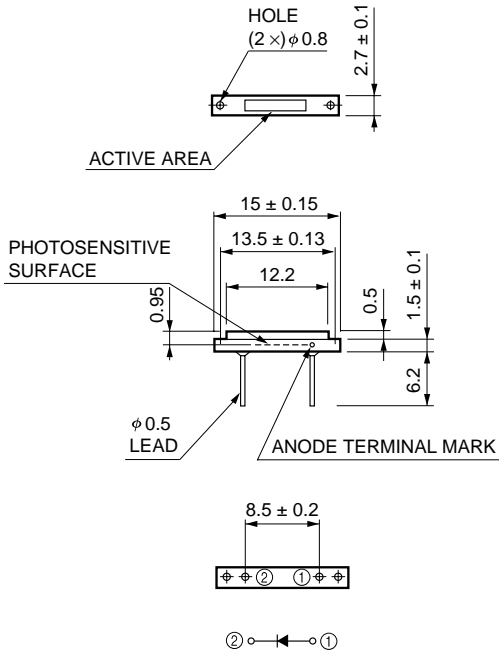


■ Shunt resistance vs. ambient temperature



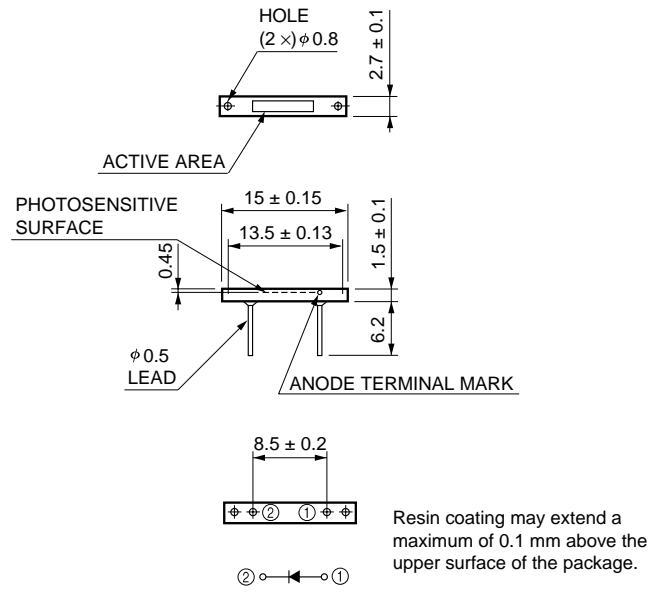
■ Dimensional outlines (unit: mm)

① S1337-16BQ



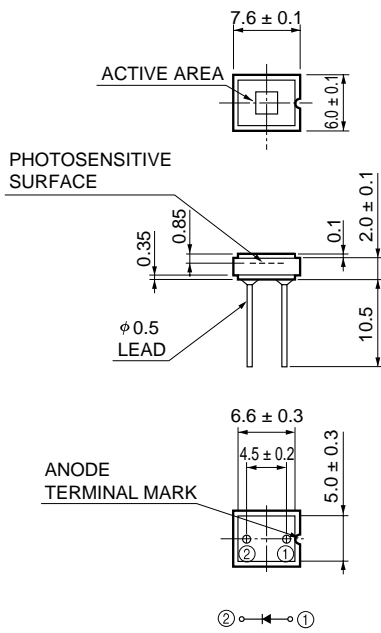
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② S1337-16BR



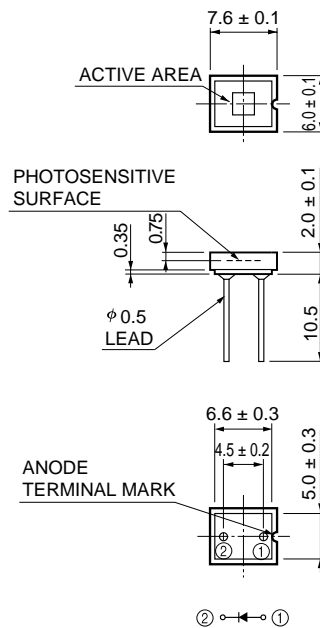
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③ S1337-33BQ



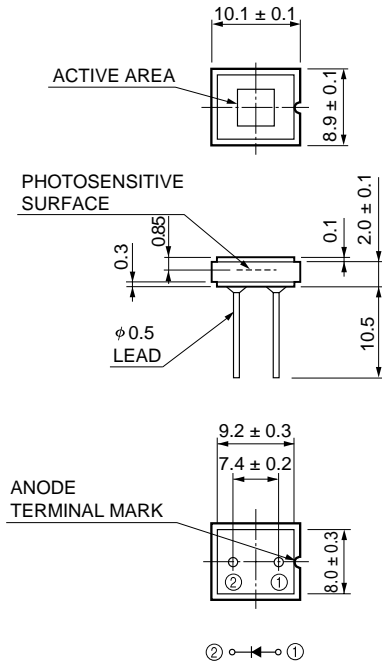
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④ S1337-33BR



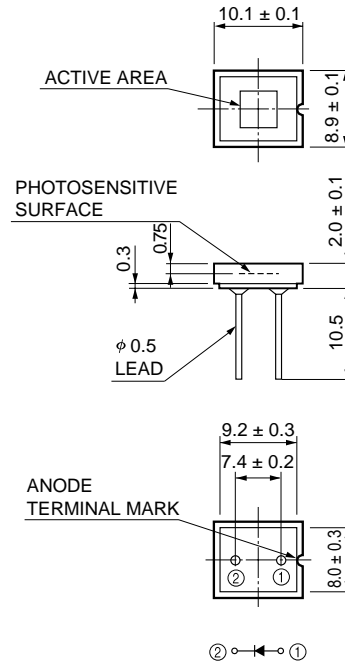
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⑤ S1337-66BQ



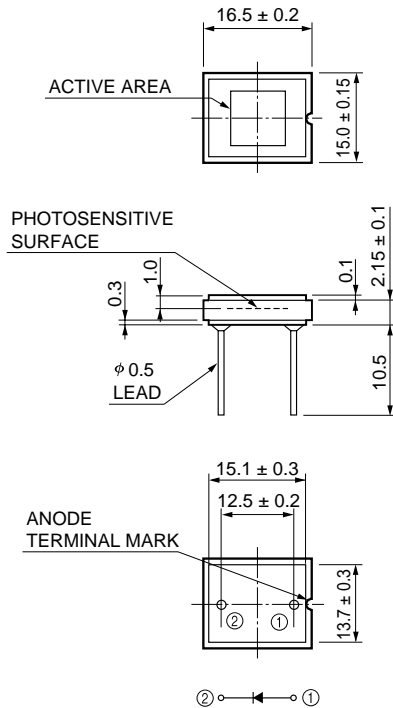
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⑥ S1337-66BR



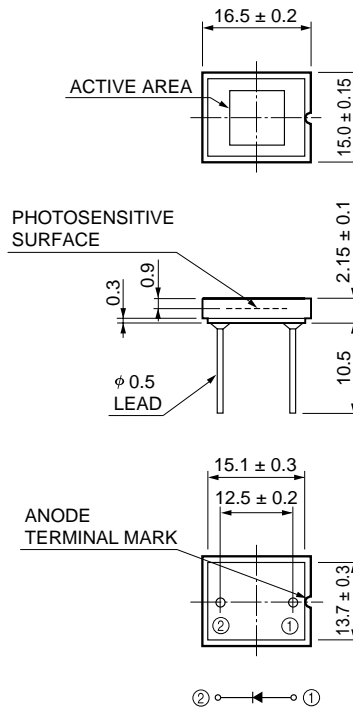
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⑦ S1337-1010BQ



KSPDA0111EA

⑧ S1337-1010BR



KSPDA0112EA

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