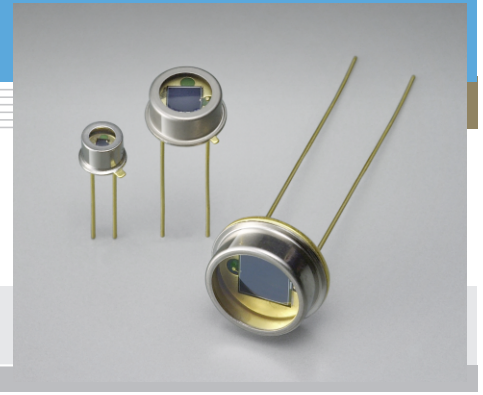


Si photodiode S1226 series

For UV to visible, precision photometry; suppressed IR sensitivity



Features

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

Applications

- Analytical equipment
- Optical measurement equipment, etc.

■ General ratings / absolute maximum ratings

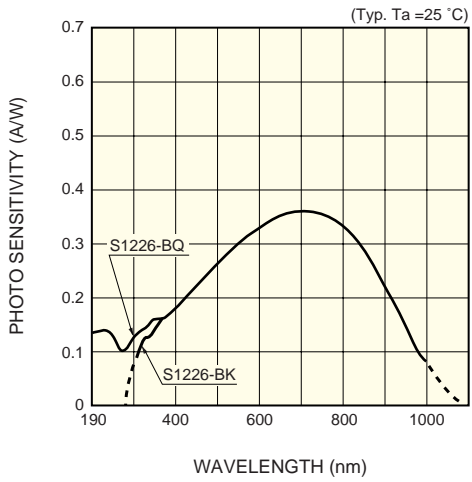
| Type No. | Dimensional outline/ Window material * | Package (mm) | Active area size (mm) | Effective active area (mm ²) | Absolute maximum ratings | | |
|------------|---|-----------------|--------------------------|---|-----------------------------------|---------------------------------------|-------------------------------------|
| | | | | | Reverse voltage VR Max. (V) | Operating temperature Topr (°C) | Storage temperature Tstg (°C) |
| S1226-18BQ | ①/Q | TO-18 | 1.1 × 1.1 | 1.2 | 5 | -20 to +60 | -55 to +80 |
| S1226-18BK | ①/K | | | | | -40 to +100 | -55 to +125 |
| S1226-5BQ | ②/Q | TO-5 | 2.4 × 2.4 | 5.7 | | -20 to +60 | -55 to +80 |
| S1226-5BK | ②/K | | | | | -40 to +100 | -55 to +125 |
| S1226-44BQ | ②/Q | | | | | -20 to +60 | -55 to +80 |
| S1226-44BK | ②/K | -40 to +100 | -55 to +125 | | | | |
| S1226-8BQ | ③/Q | TO-8 | 5.8 × 5.8 | 33 | | -20 to +60 | -55 to +80 |
| S1226-8BK | ③/K | | | | | -40 to +100 | -55 to +125 |

■ 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 | Min. (μA) | | | | | Typ. (μA) | Min. (GΩ) | | Typ. (GΩ) | | | | | | | | | | | |
| | | | | Min. | Typ. | | | | | | | | | | | | | | | | | | | | | |
| S1226-18BQ | 190 to 1000 | 720 | 0.36 | 0.10 | 0.12 | 0.34 | 0.5 | 0.66 | 2 | 1.12 | 0.15 | 35 | 5 | 50 | 1.6 × 10 ⁻¹⁵ | | | | | | | | | | | |
| S1226-18BK | 320 to 1000 | | | | | | | | | | | | | | | - | - | | | | | | | | | |
| S1226-5BQ | 190 to 1000 | | | | | | | | | | | | | | | 0.10 | 0.12 | 2.2 | 2.9 | 5 | 0.5 | 160 | 2 | 20 | 2.5 × 10 ⁻¹⁵ | |
| S1226-5BK | 320 to 1000 | | | | | | | | | | | | | | | - | - | 4.4 | 5.9 | 10 | 1 | 380 | 1 | 10 | 3.6 × 10 ⁻¹⁵ | |
| S1226-44BQ | 190 to 1000 | | | | | | | | | | | | | | | 0.10 | 0.12 | 12 | 16 | 20 | 2 | 950 | 0.5 | 5 | 5.0 × 10 ⁻¹⁵ | |
| S1226-44BK | 320 to 1000 | | | | | | | | | | | | | | | - | - | - | - | - | - | - | - | - | - | - |
| S1226-8BQ | 190 to 1000 | | | | | | | | | | | | | | | 0.10 | 0.12 | - | - | - | - | - | - | - | - | - |
| S1226-8BK | 320 to 1000 | | | | | | | | | | | | | | | - | - | - | - | - | - | - | - | - | - | - |

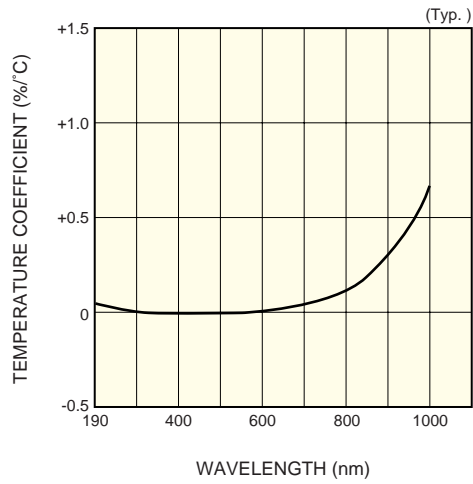
* Window material, K: borosilicate glass, Q: quartz glass

■ Spectral response



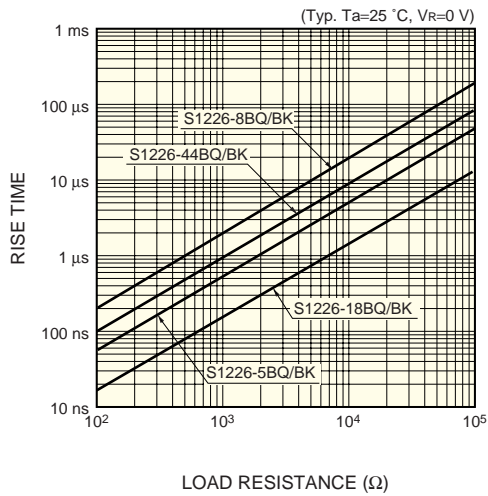
KSPDB0106EA

■ Photo sensitivity temperature characteristic



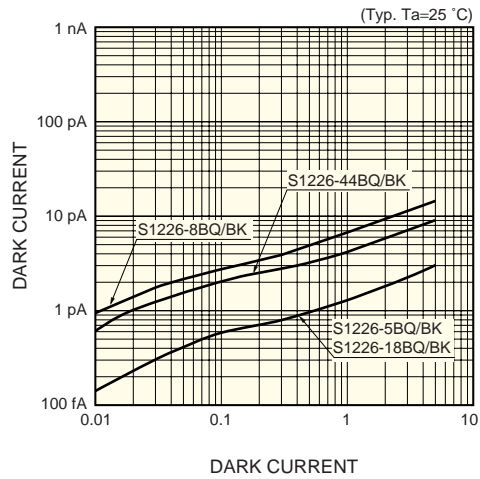
KSPDB0030EA

■ Rise time vs. load resistance



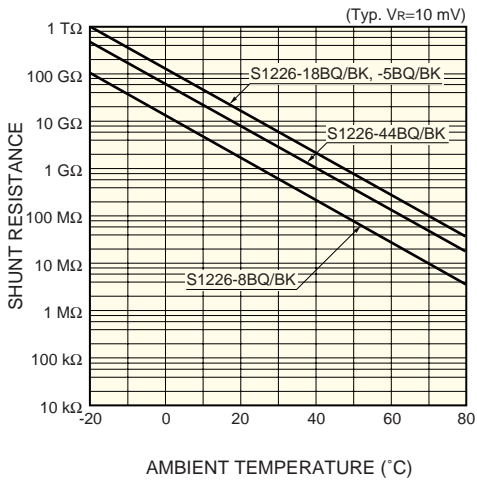
KSPDB0107EA

■ Dark current vs. reverse voltage



KSPDB0108EB

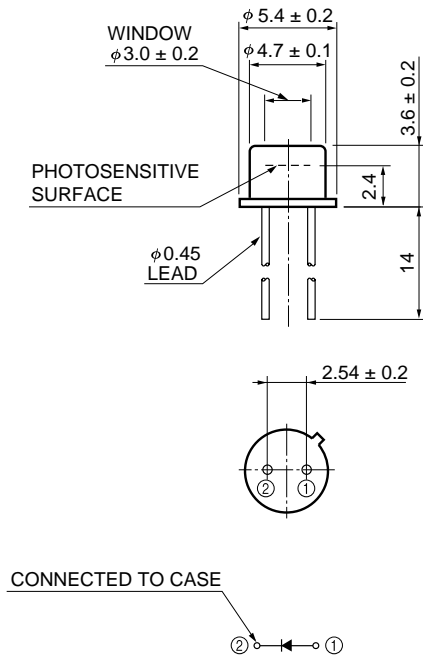
■ Shunt resistance vs. ambient temperature



KSPDB0109EA

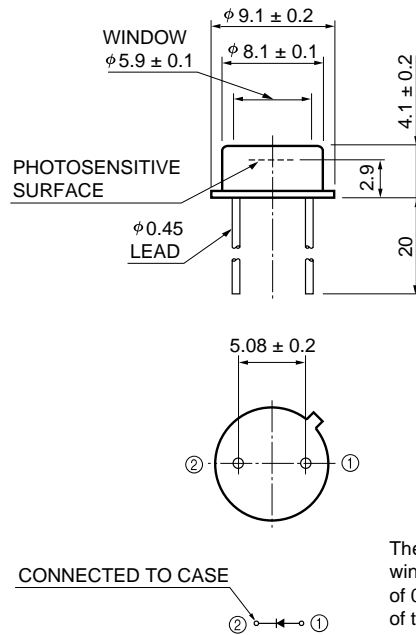
Dimensional outlines (unit: mm)

① S1226-18BQ/-18BK



KSPDA0113EB

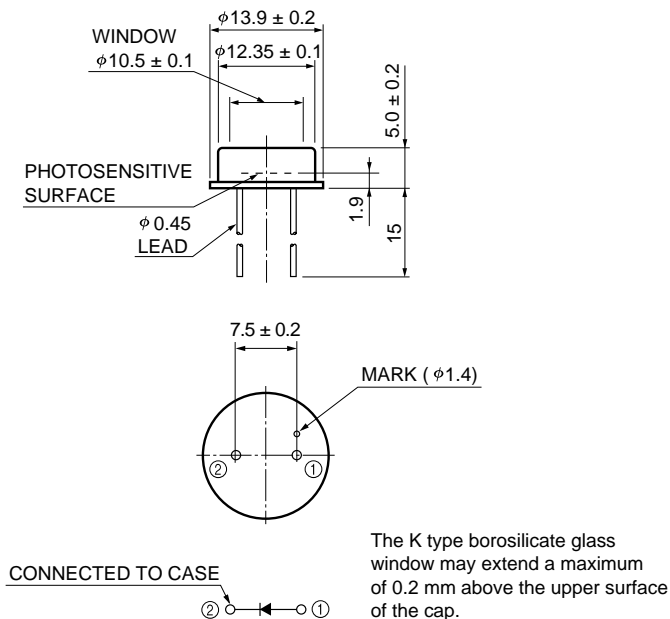
② S1226-5BQ/K, S1226-44BQ/K



The K type borosilicate glass window may extend a maximum of 0.2 mm above the upper surface of the cap.

KSPDA0114EA

③ S1226-8BQ/-8BK



The K type borosilicate glass window may extend a maximum of 0.2 mm above the upper surface of the cap.

KSPDA0115EA

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