



S2386 series

For visible to IR, general-purpose photometry

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-54151736
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

Features

- ➔ High sensitivity
- ➔ Low dark current
- ➔ High reliability
- ➔ Superior linearity

Applications

- ➔ Analytical instruments
- ➔ Optical measurement equipment

General ratings / Absolute maximum ratings

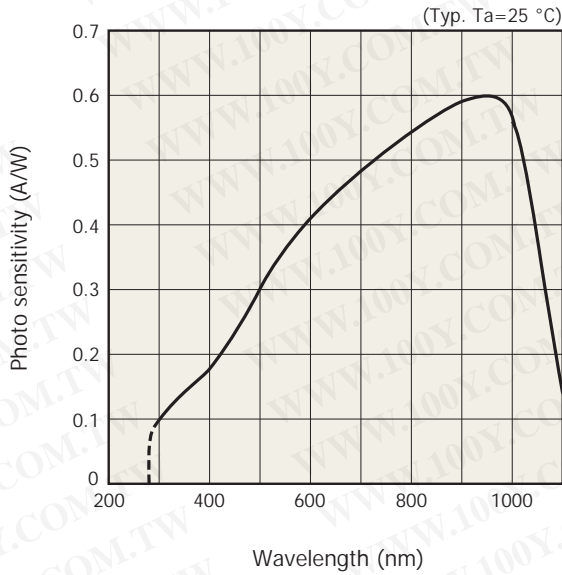
| Type No. | Dimensional outline/ Window material * | Package (mm) | Active area size (mm) | Effective active area (mm ²) | Absolute maximum ratings | | |
|-----------------------------------|---|-----------------|--------------------------|---|-----------------------------------|---------------------------------------|-------------------------------------|
| | | | | | Reverse voltage VR Max. (V) | Operating temperature Topr (°C) | Storage temperature Tstg (°C) |
| S2386-18K | ①/K | TO-18 | 1.1 × 1.1 | 1.2 | 30 | -40 to +100 | -55 to +125 |
| S2386-18L | ②/L | | | | | | |
| S2386-5K | ③/K | TO-5 | 2.4 × 2.4 | 5.7 | | | |
| S2386-44K | | | 3.6 × 3.6 | 13 | | | |
| S2386-45K | | | 3.9 × 4.6 | 17.9 | | | |
| S2386-8K | ⑤/K | TO-8 | 5.8 × 5.8 | 33 | | | |
| PRELIMINARY S2386-14(X) | ⑥/K | | | | | | |

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 VR=0 V $\lambda=\lambda_p$ (W/Hz ^{1/2}) |
|-----------------------------------|--|--|---------------------------|-------------------|-----------------------|--------------------|-------------------------------------|-----------|---|---|---|---|----------------------------------|-----------------------|--|
| | | | λ_p | GaP LED 560 nm | He-Ne laser 633 nm | GaAs LED 930 nm | Min. (μA) | Typ. (μA) | | | | | Min. (GΩ) | Typ. (GΩ) | |
| | | | | | | | | | | | | | | | |
| S2386-18K | 320 to 1100 | 960 | 0.6 | 0.38 | 0.43 | 0.59 | 1 | 1.3 | 2 | 1.12 | 0.4 | 140 | 5 | 100 | 6.8×10^{-16} |
| S2386-18L | | | | | | | 4 | 5.7 | | | | | | | |
| S2386-5K | | | | | | | 4.4 | 6.0 | 5 | | | | | | |
| S2386-44K | | | | | | | 9.6 | 12 | 20 | | | | | | |
| S2386-45K | | | | | | | 12 | 17 | 30 | | | | | | |
| S2386-8K | | | | | | | 26 | 33 | 50 | | | | | | |
| PRELIMINARY S2386-14(X) | | | | | | | | | | 10 | 4300 | 0.2 | 10 | 2.1×10^{-15} | |

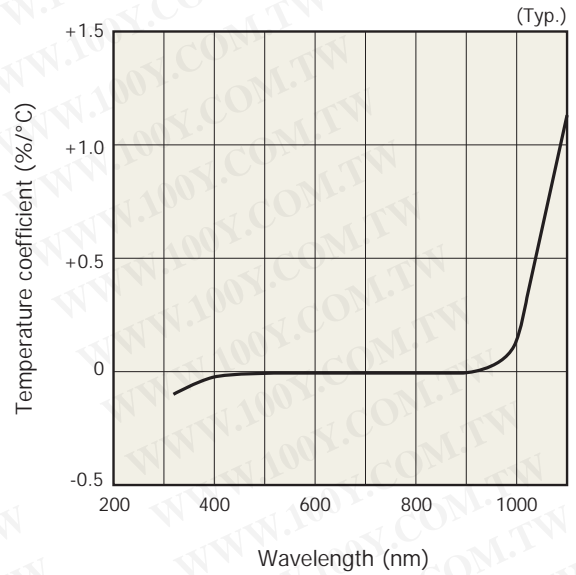
* Window material K: borosilicate glass, L: lens type borosilicate glass

Spectral response



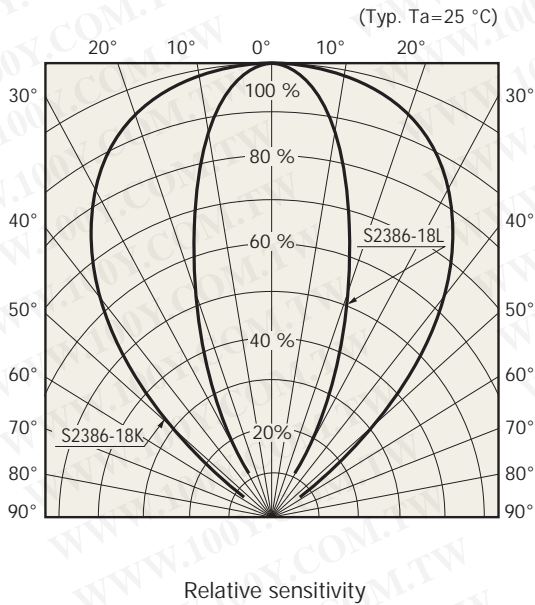
KSPDB0110EA

Photo sensitivity temperature characteristic



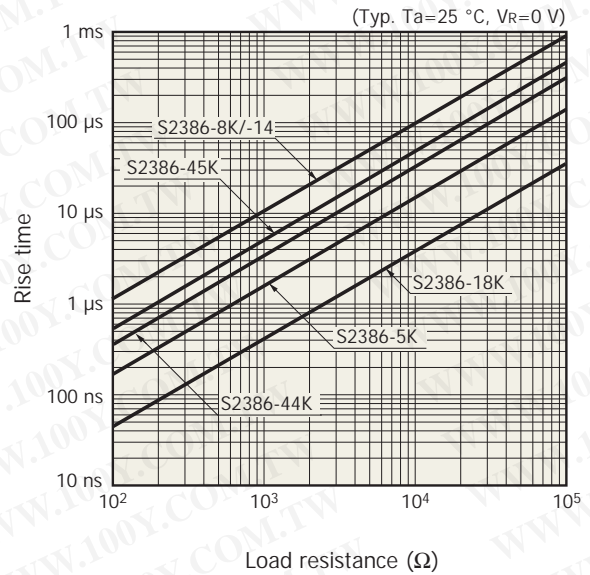
KSPDB0058EB

Directivity



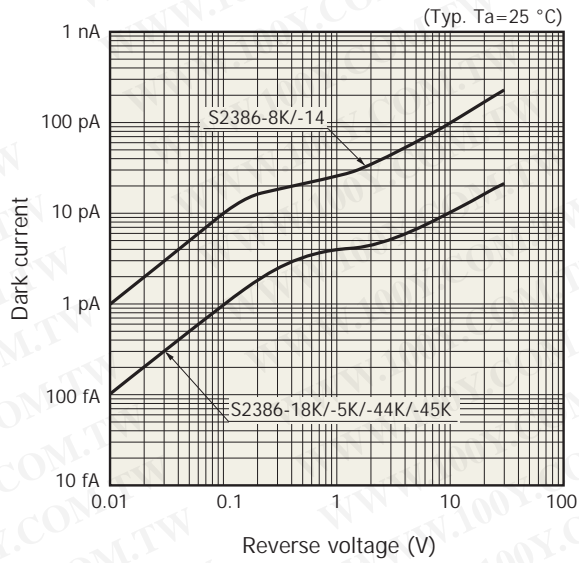
KSPDB0111EA

Rise time vs. load resistance

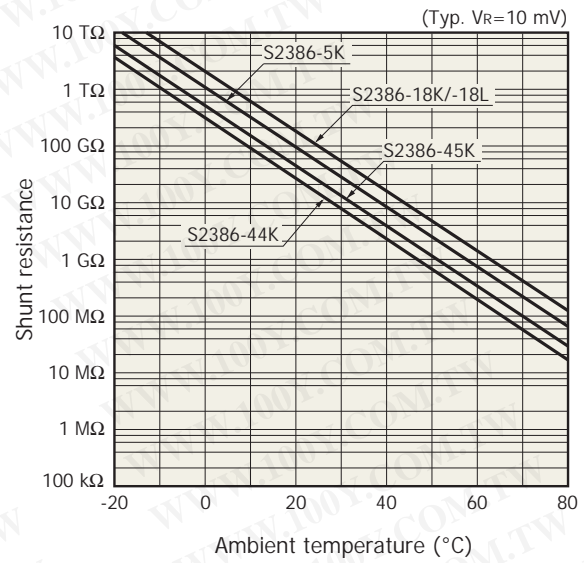


KSPDB0112EB

Dark current vs. reverse voltage

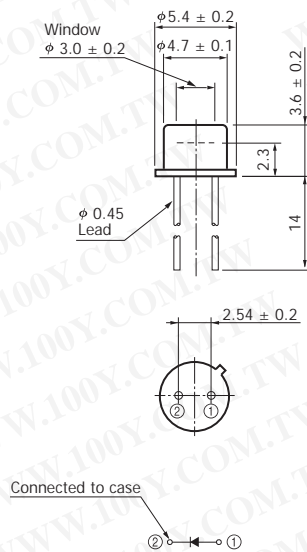


Shunt resistance vs. ambient temperature

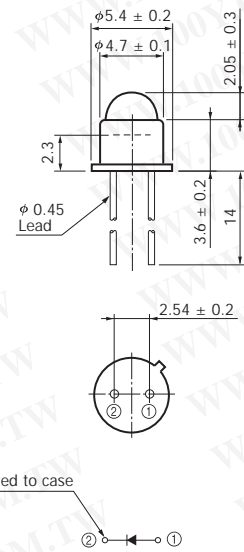


Dimensional outlines (unit: mm)

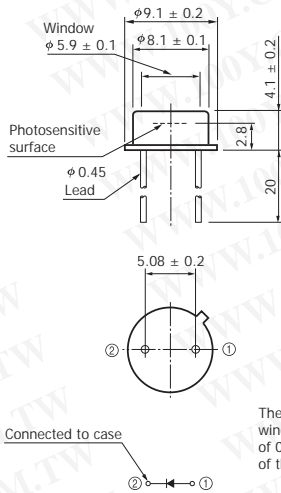
① S2386-18K



② S2386-18L

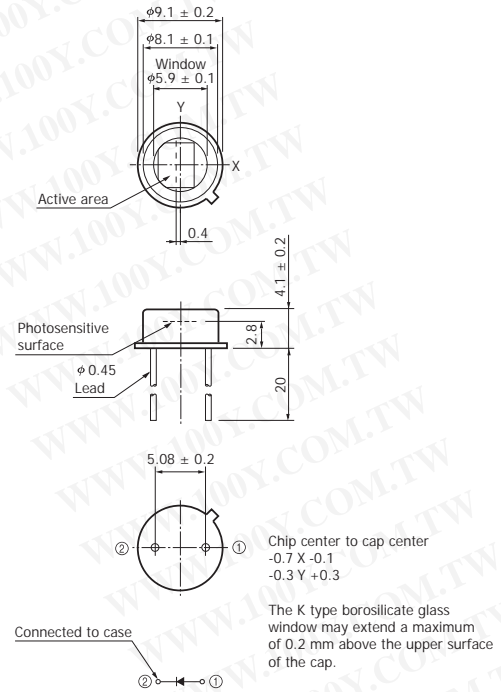


③ S2386-5K/-44K



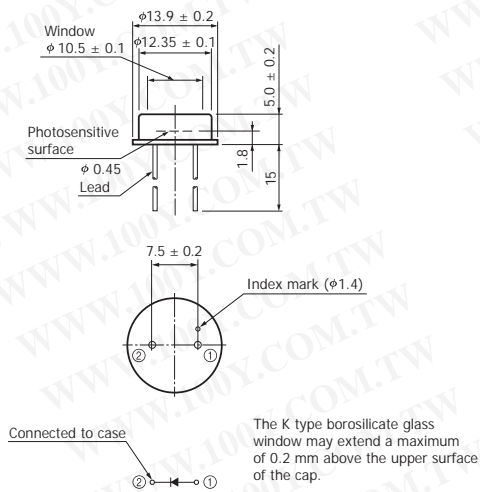
KSPDA0103EA

④ S2386-45K



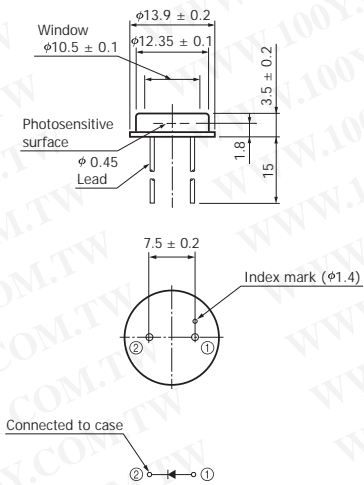
KSPDA0178EA

⑤ S2386-8K



KSPDA0104EA

⑥ S2386-14(X)



KSPDA0185EA

HAMAMATSU