

S8193

Detector for X-ray monitors

Features

- ➔ High sensitivity, high reliability photodiode with ceramic scintillator
- ➔ High X-ray sensitivity: 1.8 times that of CWO
- ➔ Less afterglow than CsI: <0.1%/3 ms, <0.01%/30 ms
- ➔ Unlike CsI, has no deliquescence

Applications

- ➔ X-ray analysis, X-ray detection

Absolute maximum ratings (Ta=25 °C)

Parameter	Symbol	Value	Unit
Reverse voltage	V _R max	5	V
Operating temperature	T _{opr}	-10 to +60	°C
Storage temperature	T _{stg}	-20 to +70	°C

Electrical and optical characteristics (without scintillator, Ta=25°C)

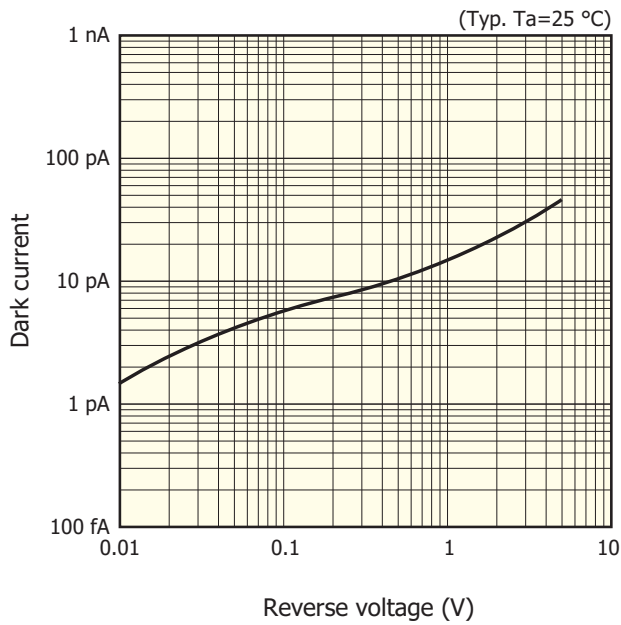
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Spectral response range	λ		-	190 to 1000	-	nm
Peak sensitivity wavelength	λ_p			720	-	nm
Photosensitivity	S	$\lambda=500$ nm	-	0.26	-	A/W
		$\lambda=\lambda_p$	-	0.5	-	A/W
Dark current	I _D	V _R =10 mV	-	2	50	pA
Terminal capacitance	C _t	V _R =0 V, f=10 kHz	-	950	-	pF

X-ray sensitivity (reference value, tube current: 1.0 mA, aluminum filter: t=6 mm, distance=830 mm)

X-ray tube voltage	Typ.	Unit
120 keV	30	nA

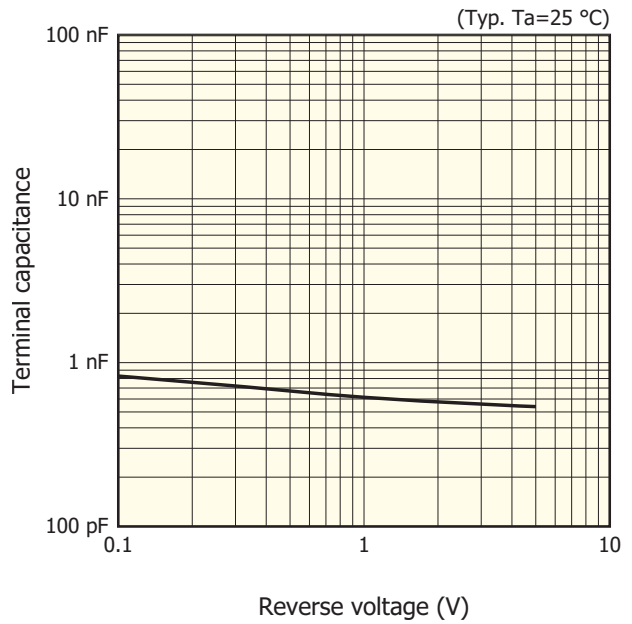
Note: Depends on equipment and measurement conditions

Dark current vs. reverse voltage



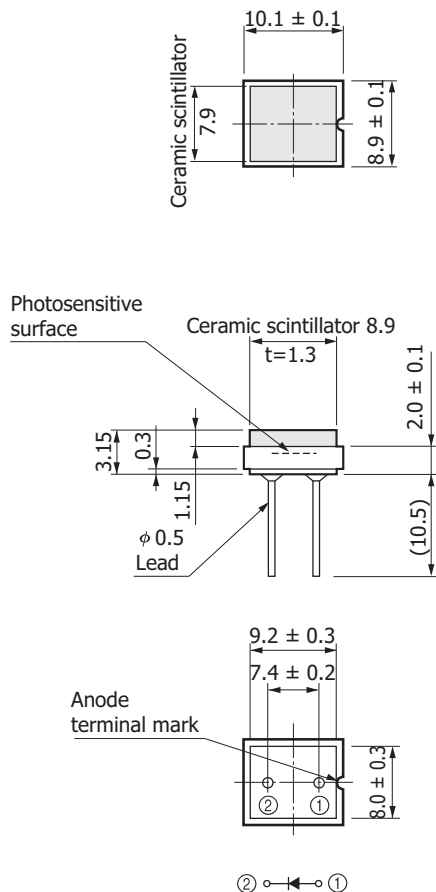
KSPD80362EA

Terminal capacitance vs. reverse voltage



KSPD80153EA

Dimensional outline (unit: mm)



KSPD80129EB

Related information

www.hamamatsu.com/sp/ssd/doc_en.html

■ Precautions

- Disclaimer
- Metal, ceramic, plastic package products

Information described in this material is current as of September 2016.

Product specifications are subject to change without prior notice due to improvements or other reasons. This document has been carefully prepared and the information contained is believed to be accurate. In rare cases, however, there may be inaccuracies such as text errors. Before using these products, always contact us for the delivery specification sheet to check the latest specifications.

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