

Si photodiode S5668-11/-34

High sensitivity X-ray detectors



Features

- 16-element photodiode array with scintillator
S5668-11: CsI
S5668-34: ceramic scintillator
- High sensitivity compared with CWO
S5668-11: 3.2 times
S5668-34: 1.8 times
- S5668-34: high reliability
less afterglow, low cross-talk, low capacitance

Applications

- X-ray fluorescence analysis
- X-ray detection

■ Absolute maximum ratings (Ta=25 °C)

Parameter	Symbol	Value	Unit
Reverse voltage	VR Max.	10	V
Operating temperature	To _{pr}	-10 to +60	°C
Storage temperature	T _{stg}	-20 to +70	°C

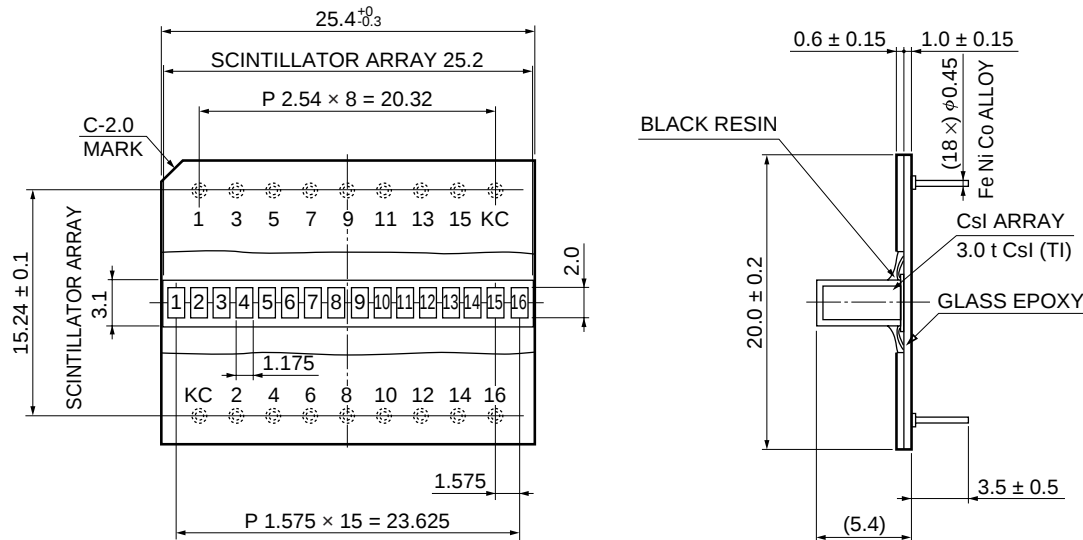
■ Photodiode electrical and optical characteristics (Ta=25 °C, per element)

Parameter	Symbol	Condition	S5668-11		S5668-34		Unit
			Typ.	Max.	Typ.	Max.	
Spectral response range	λ		320 to 1100	-	320 to 1000	-	nm
Peak sensitivity wavelength	λ_p		960	-	800	-	nm
Photo sensitivity	S	$\lambda=540$ nm	0.31	-	0.38	-	A/W
		$\lambda=\lambda_p$	0.56	-	0.54	-	A/W
X-ray sensitivity	S _x	X-ray tube voltage=120 kV *	5.8	-	2.5	-	nA
Dark current	I _D	VR=10 mV	1	10	1	30	pA
Terminal capacitance	C _t	VR=0 V, f=10 kHz	300	550	35	70	pF

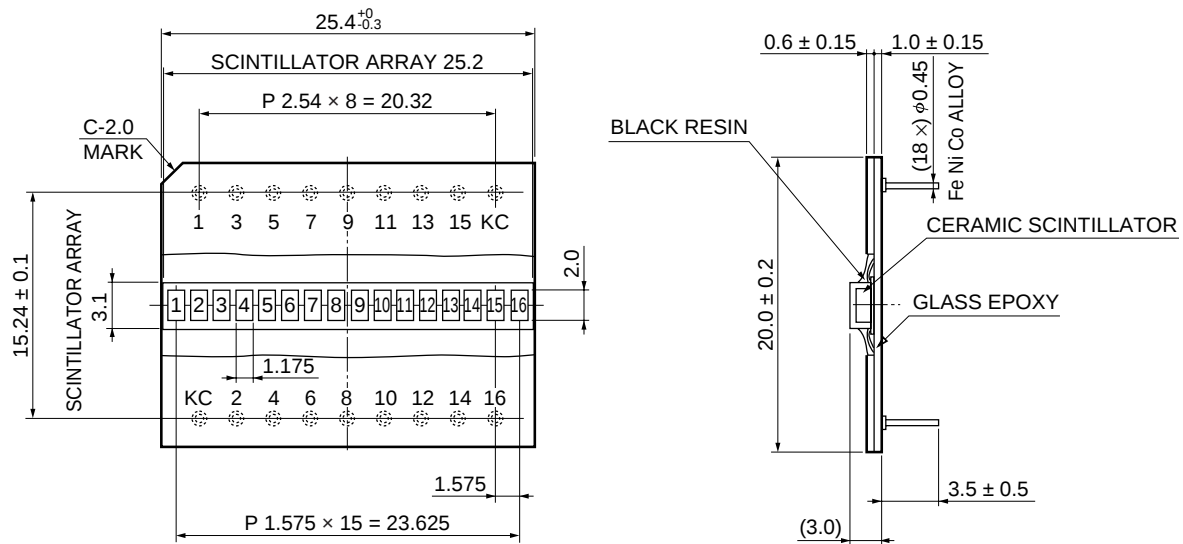
* Tube current=1.0 mA, aluminum filter: t=6 mm, distance=830 mm

Note) Sensitivity values are just for your reference. Actual sensitivity values may vary depending on an equipment type and measurement conditions.

■ Dimensional outlines (unit: mm)

S5668-11

KMPDA0130EB

S5668-34

KMPDA0096EB

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