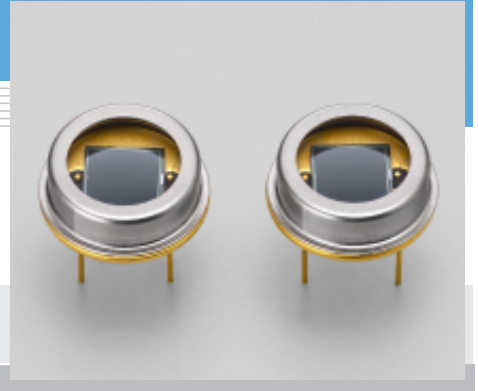


NEW

PHOTODIODE

Si photodiode S9089

Highly reliable quartz window photodiode for VUV detection



S9089 is a VUV (vacuum ultraviolet) sensitive Si photodiode ideal for ArF ($\lambda=193$ nm) excimer laser detection. Compared to conventional types, S9089 offers improved sensitivity stability against VUV irradiation. The package is hermetically sealed by a newly developed quartz window that keeps it fully airtight and highly reliable. This package is also easier to handle than S8551 windowless type photodiode.

Features

- Highly reliable quartz window
- High reliable detection of ArF excimer laser ($\lambda=193$ nm)
- Active area: 5.8×5.8 mm
- TO-8 metal package

Applications

- ArF ($\lambda=193$ nm), KrF ($\lambda=248$ nm) excimer laser measurement
- UV light detection, etc.

■ Absolute maximum ratings (Ta=25 °C)

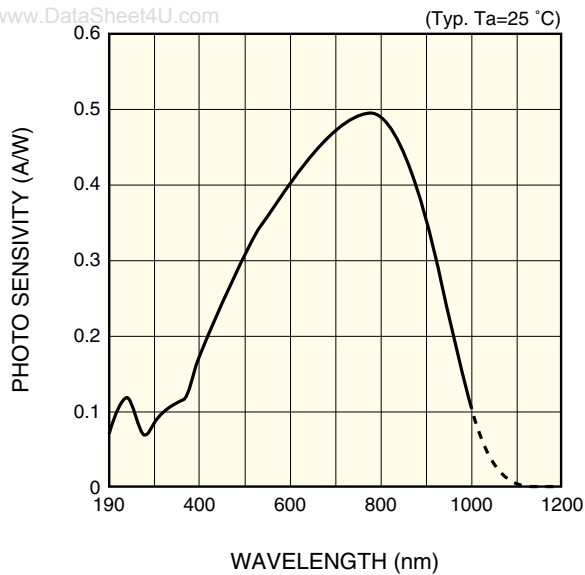
Parameter	Symbol	Value	Unit
Reverse voltage	VR Max.	5	V
Operating temperature	Topr	-40 to +100	°C
Storage temperature	Tstg	-55 to +125	°C

■ Electrical and optical characteristics (Ta=25 °C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Spectral response range	λ		-	190 to 1000	-	nm
Peak sensitivity wavelength	λ_p		-	780	-	nm
Photo sensitivity	S	$\lambda=193$ nm	0.04	0.06	-	A/W
		$\lambda=800$ nm	0.4	0.5	-	A/W
Dark current	ID	VR=10 mV	-	0.02	0.5	nA
Rise time	tr	VR=0 V, RL=1 k Ω $\lambda=655$ nm, 10 to 90 %	-	2	-	μ s
Terminal capacitance	Ct	VR=0 V, f=10 kHz	-	0.7	-	nF

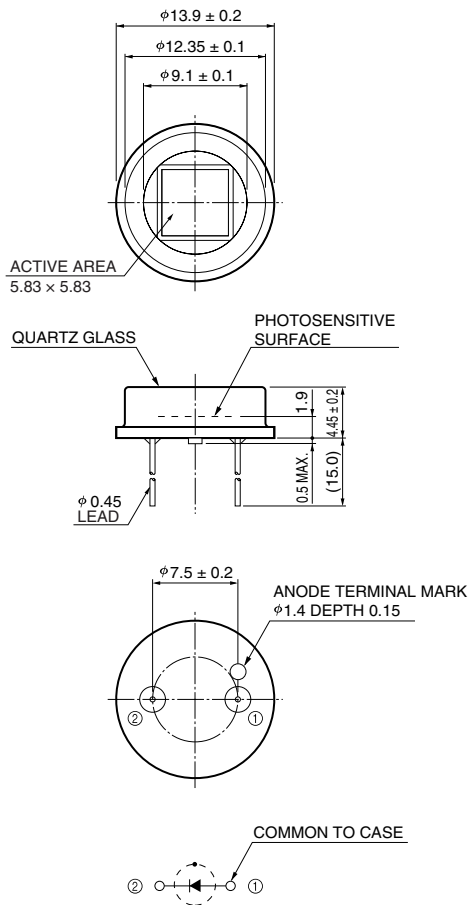
■ Spectral response

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KSPDB0225EA

■ Dimensional outline (unit: mm)



KSPDA0157EA

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