

PbSe photoconductive detector P9696 series

High sensitivity type



P9696 series are PbSe photoconductive detector with greatly improved photo sensitivity and D^* as compared with conventional types.

Features

- Excellent photo sensitivity: 3 times higher than conventional types
- High detectivity (D^*)

Applications

- Radiation thermometer
- Flame monitors
- Gas analyzer
- Film thickness gauge

■ Specification

Parameter	P9696-02	P9696-03	Unit
Window	Sapphire glass		-
Package	TO-5		-
Cooling type	Non-cooled		-
Active area	2 × 2	3 × 3	mm

■ Absolute maximum ratings (Ta=25 °C)

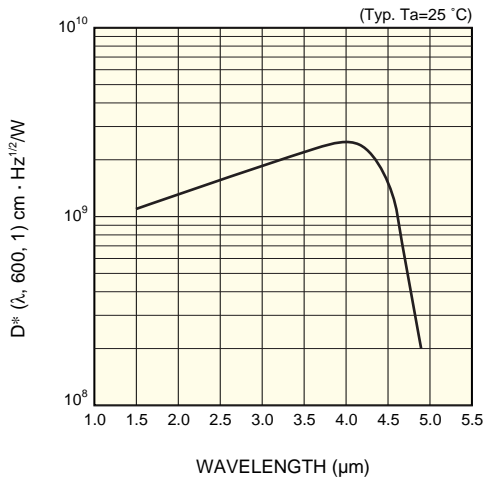
Parameter	Symbol	Value	Unit
Supply voltage	-	100	V
Operating temperature	Topr	-30 to +50	°C
Storage temperature	Tstg	-55 to +60	°C

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

Parameter	Symbol	Condition	P9696-02			P9696-03			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Peak sensitivity wavelength	λ_p		-	4.0	-	-	4.0	-	μm
Cut-off wavelength	λ_c		-	4.8	-	-	4.8	-	μm
Photo sensitivity *	S	$\lambda = \lambda_p, V_s = 15$	-	3×10^3	-	-	1.3×10^3	-	V/W
Detectivity	D^*	(500, 600, 1)	-	2.5×10^8	-	-	2.5×10^8	-	$\text{cm} \cdot \text{Hz}^{1/2}/\text{W}$
		(λ_p , 600, 1)	-	2.5×10^9	-	-	2.5×10^9	-	
Rise time	tr	0 to 63 %	-	3	-	-	3	-	μs
Dark resistance	Rd		-	2.0	-	-	2.0	-	M Ω

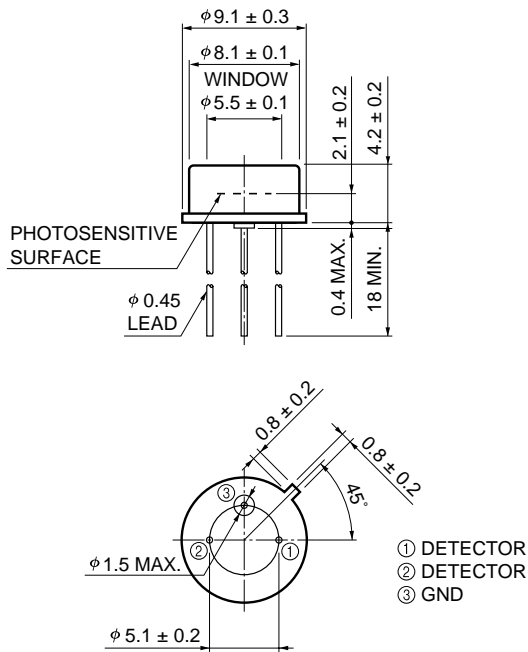
* Chopping frequency: 600 Hz, load resistance: nearly equal to dark resistance

■ Spectral response



KIRDB0342EA

■ Dimensional outline (unit: mm)



KIRDA0183EA

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HAMAMATSU PHOTONICS K.K., Solid State Division

1126-1 Ichino-cho, Hamamatsu City, 435-8558 Japan, Telephone: (81) 053-434-3311, Fax: (81) 053-434-5184, <http://www.hamamatsu.com>

U.S.A.: Hamamatsu Corporation: 360 Foothill Road, P.O.Box 6910, Bridgewater, N.J. 08807-0910, U.S.A., Telephone: (1) 908-231-0960, Fax: (1) 908-231-1218

Germany: Hamamatsu Photonics Deutschland GmbH: Arzbergerstr. 10, D-82211 Herrsching am Ammersee, Germany, Telephone: (49) 08152-3750, Fax: (49) 08152-2658

France: Hamamatsu Photonics France S.A.R.L.: 8, Rue du Saule Trapu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone: 33-(1) 69 53 71 00, Fax: 33-(1) 69 53 71 10

United Kingdom: Hamamatsu Photonics UK Limited: 2 Howard Court, 10 Tewin Road, Welwyn Garden City, Hertfordshire AL7 1BW, United Kingdom, Telephone: (44) 1707-294888, Fax: (44) 1707-325777

North Europe: Hamamatsu Photonics Norden AB: Smidesvägen 12, SE-171 41 Solna, Sweden, Telephone: (46) 8-509-031-00, Fax: (46) 8-509-031-01

Italy: Hamamatsu Photonics Italia S.R.L.: Strada della Moia, 1/E, 20020 Arese, (Milano), Italy, Telephone: (39) 02-935-81-733, Fax: (39) 02-935-81-741