

Infrared detectors

PbS photoconductive detector

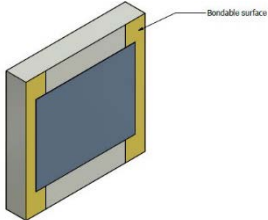
Applications

- Gas analysis
- Spectroscopy
- Process control
- Temperature control

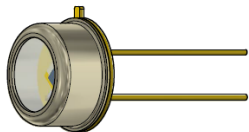
Specification

Operating temperature [°C]	Storage temperature [°C]	Peak sensitivity wavelength λ_P [μm]	20 % cut-off wavelength λ_C [μm]	Time constant [μs]	Dark resistance R_d [MΩ]	Min D^* (606 Hz, 1 Hz) [cm·Hz ^{1/2} /W]	Peak D^* (606 Hz, 1 Hz) [cm·Hz ^{1/2} /W]
-30 to +70	-55 to +70	2.2	2.9	200	0.3 to 3.0	$5 \cdot 10^{10}$	$1 \cdot 10^{11}$
<ul style="list-style-type: none"> • Measured with 1550 nm LED, incident power 22 μW/cm² • Measured in a voltage divider circuit with 10 V/mm and linearly extrapolated to 50 V/mm • Photo responsivity and detectivity are measured with matched load resistance ($R_L = R_D$) 							

Thin film encapsulation (bare chip)

Type No.	Active area [mm x mm]	Peak responsivity S [V/W]	Download datasheet	Mechanical outline
PbS005005BC	0.5x0.5	$16 \cdot 10^5$	pdf	
PbS010010BC	1x1	$8 \cdot 10^5$	pdf	
PbS020020BC	2x2	$4 \cdot 10^5$	pdf	
PbS030030BC	3x3	$3 \cdot 10^5$	pdf	
PbS060060BC	6x6	$1.4 \cdot 10^5$	pdf	
PbS100100BC	10x10	$6.0 \cdot 10^4$	pdf	

Double encapsulation (thin film and TO)

Type No.	Active area [mm x mm]	Peak responsivity S [V/W]	Download datasheet	Mechanical outline
PbS005005TO5	0.5x0.5	$16 \cdot 10^5$	pdf	
PbS010010TO5	1x1	$8 \cdot 10^5$	pdf	
PbS020020TO5	2x2	$4 \cdot 10^5$	pdf	
PbS030030TO5	3x3	$3 \cdot 10^5$	pdf	