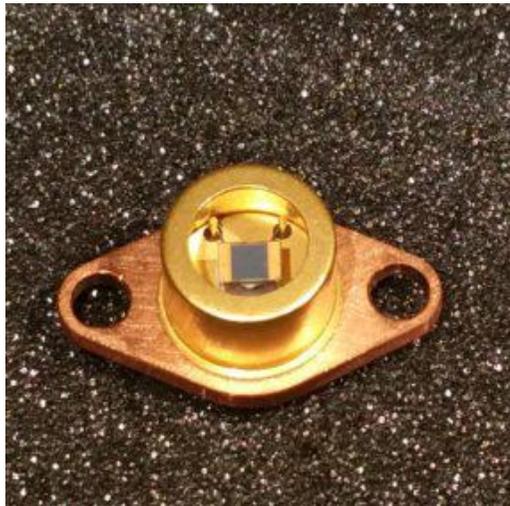


PbS 3 Watt Cooled Photoconductive IR Detectors

TE Cooled Infrared Detectors with Fast Response and Ultra-High Sensitivity in the 1 – 3.3 μm Wavelength Band



Ambient Temperature:	+25°C
Detector Operating Temperature:	see model types below
Typical Cooler Power at or near Max. Cooling:	1.8 volts @ 1.2 amps

Standard Specifications – Electrical

All detector specifications are at a bias voltage of 50 V/mm distance between electrodes applied across the detector and with a one MegOhm load

resistor in series. All specifications apply at or near maximum cooling with the heat sink @ +25°C.				
	Minimum	Typical	Maximum	Units
Wavelength of Max. Response	2.6	2.7		μm
D*(λ_{pk}, 630 Hz, 1 Hz)	2.0 x 10 ¹¹	3.0 x 10 ¹¹		cm Hz ^{1/2} w ⁻¹
Element Resistance (Dark)	2.0	6.0	20.0	MegOhm
Time Constant (not typically measured)		1750	3500	μsec
Rated Element Temperature			+65	°C
Delta T at or near Max. Cooling	70	75		°C

When using the table below, remove parenthesis and insert appropriate designation for package type in the space. Example: 6 for TO-66, 8 for TO-8.

Model Number	Element Size(mm)	Responsivity (I _{pk} , 630) v/w		Operating Temp	Standard Package Options
		Minimum	Typical		
A1-()C4T	1 x 1	1,400,000	2,100,000	-50°C	TO-66, TO-8
A2-()C4T	2 x 2	700,000	1,100,000	-50°C	TO-66, TO-8
A3-()C4T	3 x 3	430,000	650,000	-45°C	TO-66, TO-8
A6-()C2T	6 x 6	240,000	360,000	-25°C	TO-66, TO-8

* Minimum D*(I_{pk}, 630, 1) > 1.5 x 10¹⁰ cm Hz^{1/2} w⁻¹*

To specify thermistor option for all TE cooled detectors, add the suffix -T or -TC (calibrated) to the model number.