

## PbS 2 Watt Cooled Photoconductive IR Detectors

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



Ambient Temperature:	+25°C
Detector Operating Temperature	-35°C
Typical Cooler Power at or near Max. Cooling:	0.9 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
<b>Wavelength of Max. Response</b>	2.4	2.5		μm
<b>D*(λ<sub>pk</sub>, 630 Hz, 1 Hz)</b>	1.0 x 10 <sup>11</sup>	1.5 x 10 <sup>11</sup>		cm Hz <sup>1/2</sup> w <sup>-1</sup>
<b>Element Resistance (Dark)</b>	2.0	3.0	15.0	MegOhm
<b>Time Constant (not typically measured)</b>		1200	2500	μsec
<b>Rated Element Temperature</b>			+65	°C
<b>Delta T at or near Max. Cooling</b>	55	60		°C

When using the table below, remove parenthesis and insert appropriate designation for package type in the space. Example: 7 for TO-37, 8 for TO-8.

Model Number	Element Size (mm)	Responsivity (I <sub>pk</sub> , 630) v/w		Standard Package Options
		Minimum	Typical	
A1-( )C3T	1 x 1	1,300,000	2,000,000	TO-37, TO-8
A2-( )C3T	2 x 2	660,000	1,000,000	TO-37, TO-8
A3-( )C3T	3 x 3	430,000	640,000	TO-37, TO-8

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