

PYROELECTRIC INFRA-RED DETECTOR PLT 52525

High performance uncompensated Lithium Tantalate detector with good N.E.P. available in a wide range of options.

Unique Characteristics

Element dimensions 2.5 x 2.5mm

Field of view >45°(round window)
>80° (square window)
>100° (square window Ge or Si)

Rate of change of temperature <0.3 K min⁻¹
(with standard gate resistor of 5x10¹⁰Ω)

General characteristics See Page 5

Windows available See Page 12 & 13

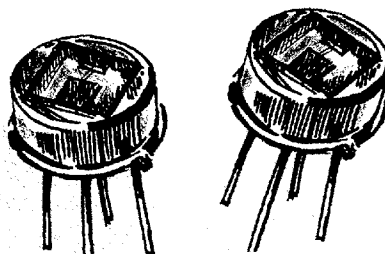
Device outlines Nos. 1 or 2
depending on window requirements See Page 14

Features

- Large area
- Rugged construction
- Integral JFET
- Good NEP

Applications

- Flame detection
- Gas analysis
- Laboratory instrumentation



Performance Data

At 20°C, +6V supply. The responsivity assumes no window.

Frequency (Hz)		0.1	1.0	10.0	100	1000	
Responsivity	Typ	4600	2400	280	28	2.8	VW ⁻¹
	Min	3700	1900	220	22	2.2	VW ⁻¹
Noise	Typ	14.0	1.6	0.3	0.04	0.01	μVHz ^{-1/2}
	Max	20.0	3.0	0.4	0.06	0.02	μVHz ^{-1/2}
NEP	Typ	2.5	0.7	0.9	1.4	3.5	10 ⁻⁹ WHz ^{-1/2}
	Max	5.0	1.6	1.8	2.1	8.0	10 ⁻⁹ WHz ^{-1/2}
NEI	Typ	4.0	1.1	1.4	2.2	5.6	10 ⁻⁴ WHz ^{-1/2} m ⁻²
	Max	8.0	2.2	2.8	3.3	12.0	10 ⁻⁴ WHz ^{-1/2} m ⁻²
D*	Typ	1.0	3.5	2.7	1.8	0.7	10 ⁶ m Hz ^{1/2} W ⁻¹
	Min	0.5	1.6	1.4	1.2	0.3	10 ⁶ m Hz ^{1/2} W ⁻¹

