

PYROELECTRIC INFRA-RED DETECTOR PLT 51717

Low cost uncompensated Lithium Tantalate detector designed for high volume gas and flame sensing applications.

Unique Characteristics

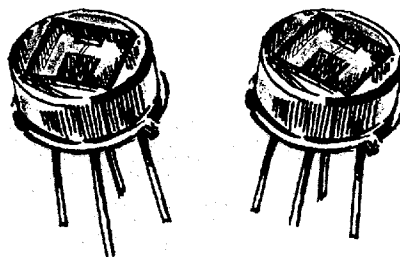
Element dimensions	1.7 x 1.7mm
Field of view	>65° (round window) >80° (Square window Ge or Si)
Rate of change of temperature	<0.5 K min ⁻¹ (with standard gate resistor of 7x10 ¹⁰ Ω)
General characteristics	See Page 5
Windows available	See Pages 12 & 13
Device outline No.3	See Page 14

Features

- Small area
- Rugged construction
- Integral JFET preamplifier
- Good NEP
- Range of window options

Applications

- Low cost non-dispersive infra red analysis
- Flame detection
- 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	5200	4500	570	57	5.7	VW ⁻¹
	Min	4100	3600	450	45	4.5	VW ⁻¹
Noise	Typ	24.0	3.0	0.35	0.06	0.017	μVHz ^{-1/2}
	Max	35.0	5.0	0.55	0.10	0.030	μVHz ^{-1/2}
NEP	Typ	5.0	0.7	0.6	1.1	3.0	10 ⁻⁹ WHz ^{-1/2}
	Max	8.5	1.4	1.2	2.2	6.7	10 ⁻⁹ WHz ^{-1/2}
NEI	Typ	16.0	2.3	2.0	3.5	10.0	10 ⁻⁴ WHz ^{-1/2} m ⁻²
	Max	30.0	5.0	4.0	7.0	22.0	10 ⁻⁴ WHz ^{-1/2} m ⁻²
D*	Typ	0.4	2.4	2.8	1.6	0.6	10 ⁶ m Hz ^{1/2} W ⁻¹
	Min	0.3	1.2	1.4	0.8	0.2	10 ⁶ m Hz ^{1/2} W ⁻¹

