

Detector Material	Operating Temperature (°K)	Operating Mode	Useful Wavelength Range (μ)	Peak Response (μ)	Resistance (W)	Time Constant (μSec)	D* 500°K Blackbody @ [frequency] (Jones)	D* peak @ [frequency] (Jones)
<u>Thermal Detectors</u>								
Thermocouple	295	Thermoelectric	1 - 40	-	1 - 10	25,000	3 - 12 x 10 ⁸ [5]	6 - 15 x 10 ⁸ [5]
Evaporated Thermopile	295	Thermoelectric	2 - 40	-	100	5,000	1 x 10 ⁸ [20]	2 x 10 ⁸ [20]
Thermistor	295	Bolometer	0.2 - 40	-	1 - 5 x 10 ⁶	2,000	0.3 - 1.2 x 10 ⁸ [20]	1 - 3 x 10 ⁸ [15]
Ferroelectric/Pyroelectric	295	Bolometer	1 - 12	-	-	-	1.1 x 10 ⁸ [100]	-
<u>Photon Detectors</u>								
Lead Sulfide (PbS)	295	PC	0.6 - 3.0	2.3 - 2.7	0.5 - 2 x 10 ⁶	50 - 500	1 - 7 x 10 ⁸ [800]	5 - 10 x 10 ¹⁰ [800]
	195	PC	0.5 - 3.3	2.6	0.5 - 50 x 10 ⁶	800 - 4000	2 - 8 x 10 ⁹ [800]	2 - 7 x 10 ¹¹ [800]
	77	PC	0.7 - 3.8	2.9	1 - 50 x 10 ⁶	500 - 5000	3 - 9 x 10 ⁹ [800]	0.8 - 2 x 10 ¹¹ [800]
Lead Selenide (PbSe)	295	PC	0.9 - 4.6	3.8	1 - 10 x 10 ⁶	2	.7 - 3 x 10 ⁸ [800]	1 - 4 x 10 ⁹ [800]
	195	PC	0.8 - 5.5	4.2	1 - 35 x 10 ⁶	30	2 - 4 x 10 ⁹ [800]	1 - 4 x 10 ¹⁰ [800]
	77	PC	0.8 - 6.6	5.1	1 - 100 x 10 ⁶	40	2 - 6 x 10 ⁹ [800]	1 - 3 x 10 ¹⁰ [800]
Indium Arsenide (InAs)	295	PV	1 - 3.7	3.2	20	1	1 - 3 x 10 ⁸ [900]	3 - 7 x 10 ⁹ [900]
	195	PV	.5 - 3.5	3.2	-	1	1 - 5 x 10 ⁹ [1800]	3 - 25 x 10 ¹⁰ [1800]
	77	PV	.6 - 3.2	2.9	10 x 10 ⁶	2	3 - 8 x 10 ⁹ [1800]	20 - 70 x 10 ¹⁰ [1800]
Indium Antimonide (InSb)	295	PEM	0.5 - 7.5	6.2	20	.1	0.8 x 10 ⁸ [1000]	0.3 x 10 ⁹ [1000]
	195	PC	0.5 - 6.5	5.1	20	1	1 x 10 ⁹ [800]	5 - 9 x 10 ⁹ [800]
	77	PC	0.7 - 5.9	5.3	2 - 10 x 10 ³	1 - 10	3 - 10 x 10 ⁹ [900]	2 - 6 x 10 ¹⁰ [900]
	77	PV	0.6 - 5.6	5.1	1 - 50 x 10 ³	1	3 - 20 x 10 ⁹ [900]	3 - 8 x 10 ¹⁰ [900]
Mercury-Cadmium-Telluride (HgCdTe)	77	PV	6 - 15	10.6	5 - 50	0.01	10 ⁹ - 10 ¹⁰ (900)	