

Photodevices

infrared photoconductive detectors

book 1 part 3

Type No.	Spectral Response Peak (μm) Cut-off (μm)		Description	Drawing reference	Typical Detectivity $D^* (\text{pk}, 800, 1)$ $\text{cm}(\text{Hz})^{1/2}/\text{W}$	Typical Monochromatic Responsivity (V/W)	Typical Time Constant (μs)	Sensitive Area (mm)	Element Resistance (kΩ)
RPY75	1.5 to 2.1	2.6	Lead sulphide detectors for room temperature operation RPY75A incorporates a germanium filter to cut off visible radiations	BY	2.0×10^{10}	200mA/W	250	1.0 x 1.0	> 200
RPY75A									
RPY76	1.5 to 2.1	2.6	Lead sulphide detectors for room temperature operation RPY76A incorporates a germanium filter to cut off visible radiations	AV5	2.0×10^{10}	200mA/W	250	1.0 x 1.0	> 200
RPY76A									
61SV	2.2	3.5	Lead sulphide detector for room temperature operation	BZ	4.0×10^{10}	8×10^4	100	6.0 x 6.0	1 to 4MΩ
62SV	2.5	3.5	Lead sulphide detector for room temperature operation	BZ	6.0×10^{10}	1.2×10^5	175	6.0 x 6.0	1 to 4MΩ
ORP13	5.3	5.6	Indium antimonide detector for liquid N ₂ temperature 77K operation	CA	5.5×10^{10}	3.5×10^4	5	6.0 x 0.5	20 to 60
RPY31	5.3	5.6	Indium antimonide detector for liquid N ₂ temperature 77K operation	CA	4.0×10^{10}	3.8×10^3	5	4.0 x 4.0	1 to 5
RPY35	5.3	5.6	Indium antimonide detector for liquid N ₂ or miniature Joule-Thompson coolers	CB	4.0×10^{10}	3.8×10^3	5	4.0 x 4.0	1 to 5
RPY51	5.3	5.6	Indium antimonide detectors for 77K operation using liquid N ₂ or miniature Joule-Thompson coolers	CB	10×10^{10}	4.5×10^4	2.5	0.5 x 0.5	1.2 to 3.5
ORP10	6 to 6.3	7.5	Indium antimonide detector for room temperature operation	CC	2.0×10^8	1.0	0.1	6.0 x 0.5	30 to 12 Ω
RPY77 RPY78	6 to 6.3 6 to 6.3	7.5 7.0†	Indium antimonide labyrinth detectors for room temperature operation	CD	1.5×10^8	9.0	< 0.1	2 x 2	0.5 x 1.5

† Limited spectral response due to sapphire window.

In addition to the above, Mullard manufacture a range of photoconductive Mercury Cadmium Telluride detectors for the 3–5 and 8–14 micron regions. Further information available from Mullard House.