



**FEATURES**

- Ambient temperature operation
- No bias required
- Short time constant
- No flicker noise
- Operation from DC to VHF
- Perfect match to fast electronics
- Wide dynamic range
- Large area devices
- Low cost
- Custom design upon request

**DESCRIPTION**

The PVM-n (where n is optimal wavelength ( $\lambda_{op}$ ), in micrometers, to which the detector is optimized) series photodetectors are multiple heterojunction photovoltaic IR detectors. These devices are especially useful as large area detectors operating within 2 to 11 μm range. High performance and stability were achieved by using band gap engineered (HgCdZn)Te semiconductors, optimized doping and improved surface processing. Custom devices with quadrant cells, multielement arrays, various immersion lenses, windows and optical filters are available on request.

Standard detectors are available in modified TO-39 or BNC-based packages with no windows. Other packages, windows and connectors are available upon request. See application notes for more details.

**SPECIFICATION**

**@20°C**

CHARACTERISTICS	UNITS	PVM-8	PVM-10.6
$\lambda_{op}$	μm	8	10.6
Detectivity*: at $\lambda_{peak}$ at $\lambda_{op}$	cmHz <sup>1/2</sup> /W	≥1.2×10 <sup>8</sup> ≥6×10 <sup>7</sup>	≥3×10 <sup>7</sup> ≥1×10 <sup>7</sup>
Responsivity - Width Product at $\lambda_{op}$	A×mm/W	≥0.002	≥0.0007
Time constant	ns	≤12	≤1
Resistance	Ω	15 to 300	10 to 150
Operating temperature	K	300	
Acceptance angle, F/#	deg, -	>90, 0.71	

\* Data sheet states minimum D\* values for each detector model. Higher performance detectors can be provided upon request. See application notes for more details.

Type	Length [mm]									
	0.025	0.05	0.1	0.2	0.25	0.5	1	2	3	4
PVM-8	O	O	X	X	O	O	X	X	X	X
PVM-10.6	O	O	X	X	O	O	X	X	X	X

X – unbiased standard device

O – detectors available on request, parameters may vary from these in data sheets



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