



FEATURES

- High performance in the long wavelength range without LN-cooling
- Fast response
- No flicker noise
- Convenient to use
- Wide dynamic range
- Compact, rugged and reliable
- Low cost
- Prompt delivery
- Custom design upon request

DESCRIPTION

The PVMI-2TE-n (where n is wavelength λ_{op}, in micrometers, to which the detector is optimized) series photodetectors are two-stage TE-cooled IR photovoltaic detectors, which have been optically immersed to high refractive index GaAs or CdZnTe hemispherical or hyperhemispherical lenses. These devices can be optimized for the maximum performance for long wavelength, large area devices. High performance and stability were achieved by using a newly developed variable gap semiconductors (HgCdZn)Te, optimized composition/doping profiles and improved surface processing. Standard detectors are available in modified TO-8 packages with BaF₂ windows.

Other packages and windows are available upon request. See application notes for more details.

Custom devices with quadrant cells, multielement arrays, specialized packages, connectors, windows and optical filters are available on request.

SPECIFICATION

@20°C

CHARACTERISTICS	UNITS	PVMI-2TE-10.6
λ _{op}	μm	10.6
Detectivity*: at λ _{peak} at λ _{op}	cmHz ^{1/2} /W	≥2·10 ⁹ ≥1·10 ⁹
Responsivity - Width Product at λ _{op}	V×mm/W	≥7
Response time	ns	≤3
Resistance	Ω	30 to 300
Operating temperature	K	220 to 240
Acceptance angle, F#	deg	35, 1.65

* 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 or diameter [mm]									
	0.025	0.05	0.1	0.2	0.25	0.5	1	2	3	4
PVMI-2TE-10.6					X	X	X	X		