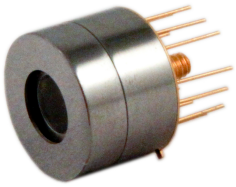
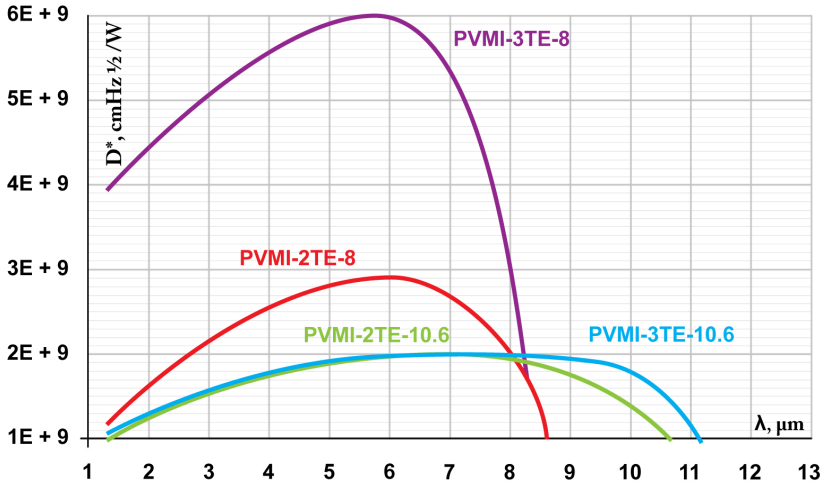
PVMI-nTE SERIES

8-11 µm IR PHOTOVOLTAIC MULTIPLE JUNCTION DETECTORS THERMOELECTRICALLY COOLED OPTICALLY IMMERSED





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-nTE-λ_{opt} photodetectors series (λ_{opt} - optimal wavelength in micrometers) feature IR photovoltaic immersed detector on n-stage thermoelectrical cooler. The devices are optimized for the maximum performance at λ_{opt}, large area devices.

Highest performance and stability are achieved by application of variable gap (HgCd)Te semiconductor, optimized doping and sophisticated surface processing. Custom devices with quadrant cells, multielement arrays, different windows, lenses and optical filters are available upon request.

Standard detectors are available in TO-8 packages with BaF_2 windows. Other packages, windows and connectors are also available.

SPECIFICATION

@20ºC

CHARACTERISTICS	UNITS	PVMI-2TE-8	PVMI-2TE-10.6	PVMI-3TE-8	PVMI-3TE-10.6
λ_{opt}	µm	8	10.6	8	10.6
Detectivity[1)] @λ_{peak} @λ_{opt}	$cmHz^{1/2}/W$	≥3×10^9 ≥2×10^9	≥2×10^9 ≥1×10^9	≥6×10^9 ≥3×10^9	≥2×10^9 ≥1.5×10^9
Responsivity - Width Product @λ_{opt}	A×mm/W	≥0.1	≥0.05	≥0.2	≥0.1
Time constant	ns	≤4	≤3	≤4	≤3
Resistance	Ω	150 to 600	100 to 350	200 to 1200	200 to 1200
Operating temperature	K	~230	~230	~210	~210
Acceptance angle, F/#	deg, -	36, 1.62	36, 1.62	36, 1.62	36, 1.62

[1)] Data sheet states minimum guaranteed D* values for each detector model. Higher performance detectors can be provided upon request.

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

X – standard detectors

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

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