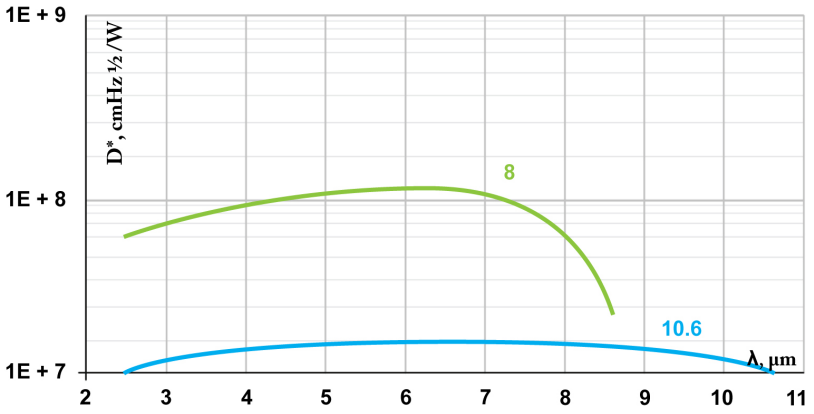
PVM SERIES

8-11 µm IR PHOTOVOLTAIC MULTIPLE JUNCTION DETECTORS



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
- Prompt delivery
- Custom design upon request

DESCRIPTION

The PVM-λ_{opt} photodetectors series (λ_{opt} - optimal wavelength in micrometers) feature IR multiple heterojunction photovoltaic detector. The devices are optimized for the maximum performance at λ_{opt}. Highest performance and stability are achieved by application of variable gap (HgCd)Te semiconductor, optimized doping and sophisticated surface processing. Standard detectors are available without window in TO-39 or BNC based package. Various windows, other packages and connectors are available upon request.

SPECIFICATION

@20ºC

CHARACTERISTICS	UNITS	PVM-8	PVM-10.6
λ_{opt}	µm	8	10.6
Detectivity[1)]: @λ_{peak} @ λ_{opt}	$cmHz^{1/2}/W$	 $\geq 1.2\times10^{8}$ $\geq 6\times10^{7}$	 $\geq 2\times10^{7}$ $\geq 1\times10^{7}$
Responsivity - Width Product @ λ_{opt}	A×mm/W	≥0.008	≥0.002
Time constant	ns	≤4	≤1.5
Resistance	Ω	50 to 300	20 to 150
Operating temperature	K	~300	
Acceptance angle, F/#	deg, -	>90, 0.71	

[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
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 – standard detectors

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

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