PHOTO DIODES 3.6 μm

Model PD36-02-TEC 3.6 mm 0.2 mm

One stage Thermoelectrically Cooled InAs/InAsSbP photodiodes

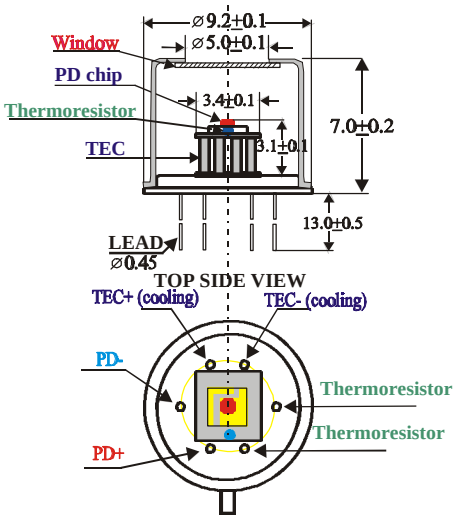
Photodiodes ***PD36-02-TEC*** are designed for detecting the radiation in the Middle Infrared spectral range from 1000 to 3600 nm. Heterostructures with the InAsSbP "window" are grown on InAs substrates.

•Photodiodes ***PD36-02-TEC*** are placed in standard 9 mm package TO-5. Thermocooler and thermoresistor are mounted inside package TO-5.

•Photodiodes ***PD36-02-TEC*** have the photosensitive area with diameter of 200 μm. Fast response makes possible their use for the detection of high frequency modulated laser or LED emission.

•Related products: ***PD36-02*** can be used in optical pair with our ***LED27÷LED36*** and ***LD300÷LD360***. We offer the preamplifier model ***AM-04*** suitable for ***PD36-02•***

Package TO-5



Parameters	t= — 20° C	t=22° C
Cut-off wavelength, μm (at 10%)	3.70	3.80
Responsivity, A/W (λ=3.4÷3.6μm)	1.0 – 1.2	
Peak wavelength > 90%	2.5-3.3	2.6-3.4
Dark Current, μA (V= - 0.2 V) (V= - 0.4 V)	20-50 70-100	200-300 400-500
Shunt resistance, kOhm	minimum 1.0 typical 1.3	minimum 0.12 typical 0.14
Capacitance, pF (V=0)	minimum 600 pF	typical 1100 pF
Rise and Fall Time, ns (V=0 V) (V=-0,5 V)	120-150 ns 20-50 ns	
Detectivity, D*, cm.Hz$^{1/2}$ /W (λ_p,1000,1)	(0.6-1.0) 10^{10}	(1-3) 10^{9}
Sensitive area diameter, μm	200	
Package	TO-5 with thermocooler and thermistor	

Main thermocooler parameters (without load)

I_{max} (Amps)	Q_{max} (Watts)	U_{max} (Volts)	ΔT_{max} °C
0.7	0.4	1.0	67