

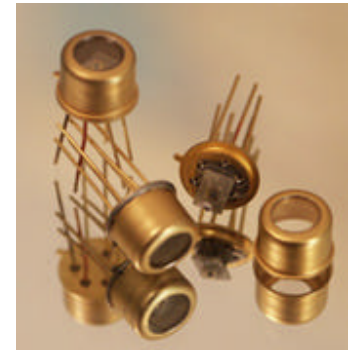
PHOTO DIODES 3.6 μm

Model PD36-03-TEC 3.6 mm 0.3 mm

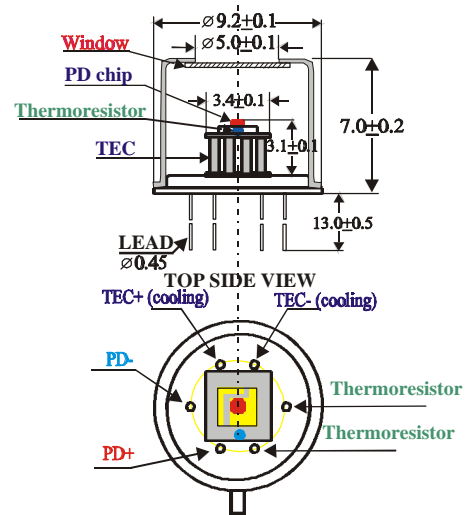
One stage Thermoelectrically Cooled InAs/InAsSbP photodiodes

Photodiodes **PD36-03-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 **PD36-03-TEC** are placed in standard 9 mm package TO-5. Thermocooler and thermoresistor are mounted inside package TO-5.
- Photodiodes **PD36-03-TEC** have the photosensitive area with diameter of 300 μm. Fast response makes possible their use for the detection of high frequency modulated laser or LED emission.
- Related products: **PD36-03** can be used in optical pair with our **LED27÷LED36** and **LD300÷LD360**. We offer the preamplifier model **AM-04** suitable for **PD36-03**



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)	40-90	400-500
	(V = -0.4 V)	90-150
Shunt resistance, Ohm	<u>minimum</u> 900	<u>minimum</u> 100
	<u>typical</u> 1100	<u>typical</u> 120
Capacitance, pF (V=0)	<u>minimum</u> 800	<u>typical</u> 1300
Rise and Fall Time, ns (V=0 V)	150-200 ns	
Detectivity, D*, cm.Hz ^{1/2} /W (λ _p ,1000,1)	(0.6-1.0) 10 ¹⁰	(1-3) 10 ⁹
	300	
Sensitive area diameter, μm	300	
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

