

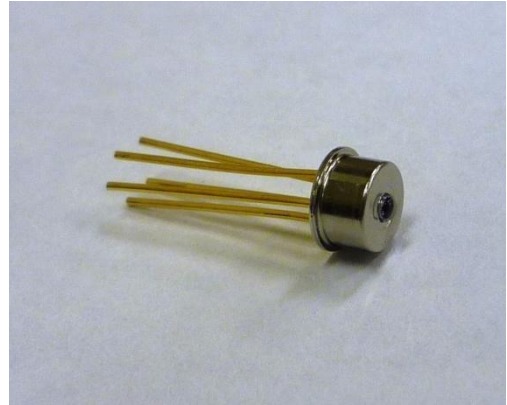
# InGaAs Avalanche Photodiode (APD)

## 2.5Gbps APD with TIA

PDAF0055TOL-T10

### Applications

G-PON / Ge-PON  
SONET OC-48/SDH STM-16 Transmission System  
DWDM System  
Gigabit Ethernet / Fiber Channel Systems



### Features

Hermetically Sealed  
1000 to 1625nm Spectral Response  
Planer Structure for High Reliability  
High Sensitivity (-32 dBm)  
Low Dark Current

### Description

Go!Foton Avalanche Photodiode (APD) with TIA is suitable for 2.5 Gbps applications in G-PON transceiver products, and other optical systems. This InGaAs APD has a planar structure for high reliability. This device has very high sensitivity and low noise, making it suitable for FTTx/PON systems. APD chip is fabricated at Go!Foton proprietary wafer fab.

### Specifications

#### Electro-Optical Characteristics

Parameter	Min	Typ	Max	Conditions
Power Supply (V)	3.0	3.3	3.6	
Supply Current (mA)		20	24	
APD Breakdown Voltage (V)	30	40	55	10 $\mu$ A
Sensitivity (dBm)			-32	2.488 GBps, BER = $10^{-10}$ ER = 10 dB, PRBS $2^{23}-1$
Frequency Response (GHz)	1.5			M = 8 RL = 50 $\Omega$
Optical Overload (dBm)	-3			



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## Absolute Maximum Rating

Parameter	Min	Typ	Max	Conditions
APD Reverse Current (mA)			2	
APD Forward Current (mA)			4	
Supply Voltage (V)	-0.5		4.5	
Maximum Input Power (mW)			1.0	
Operating Temperature (°C)	-40		85	
Storage Temperature (°C)	-40		85	
Electrostatic Discharge (V)			250	HBM

Condition unless otherwise noted: 25°C, Popt=1μW

## Drawing

