# Ultra-Large Area InGaAs p-i-n Photodiode

Sheet 1 of 1

## 35PD5M-TO

The 35PD5M-TO, an InGaAs photodiode with a 5mm-diameter photosensitive, designed for applications in high sensitivity instrumentation and sensing. Class A devices feature very low dark current and high dynamic impedance. High reliability is achieved through planar semiconductor design, dielectric-passivation, and hermetic packaging in TO-8 headers. Chips can also be attached and wire bonded to customer-supplied or other specified packages.



### Features:

- Planar Structure
- · Dielectric Passivation
- 100% Purge Burn-in
- · High Responsivity

#### **DEVICE CHARACTERISTICS**

Parameters	Test Conditions	Minimum	Typical	Maximum	Units
Dark Current	Class A -0.3V		0.1		uA
Responsivity	1300nm		0.9		A/W
Responsivity	1500nm		0.9		A/W
Rise/Fall			1		us
Dynamic Impedance	Class A (0V)		1.2		K Ohms
Dynamic Impedance	Class B		10		K Ohms
NEP	Class A		2 x 10 <sup>-13</sup>		WHz <sup>-1/2</sup>
NEP	ClassB		6 x 10 <sup>-13</sup>		WHz <sup>-1/2</sup>
D*	Class A		2 x 10 <sup>12</sup>		cmHz <sup>1/2W-1</sup>
D*	Class B		6 x 10 <sup>11</sup>		cmHz <sup>1/2W-1</sup>

### **ABSOLUTE MAXIMUM RATINGS**

Reverse Voltage	1 Volts		
Forward Current	200 mA		
Reverse Current	30 mA		
Operating Temperature	-40°C to +85°C		
Storage Temperature	-40°C to +85°C		
Soldering Temperature	250°C		

Sheet 1 of 1

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