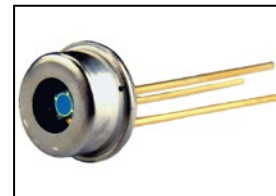




## LAPD-1-09-17-T046



### InGaAs Large Area Photo-Detector

#### Features

- Ø1 mm Active Aperture
- TO-46 package
- High Responsivity (0.9 – 1.7  $\mu\text{m}$ )
- High Reliable Planar Device
- Low Leakage Current
- High Shunt Resistance
- Wide Dynamic Range

#### Applications

- Power Monitoring
- Covert IR Sensing
- Light Detection and Ranging (LIDAR)
- Remote Temperature Sensors
- Spectral Analysis
- Humidity Detection
- Gas Leak Detection
- Optical Powering

#### Absolute Maximum Ratings

Item	Value		Unit
	Min.	Max.	
Forward Current	-	20	mA
Reverse Current	-	10	mA
Reverse Voltage	-	-20	V
Operation Temperature Range	-20	+85	°C
Storage Temperature Range	-40	+85	°C

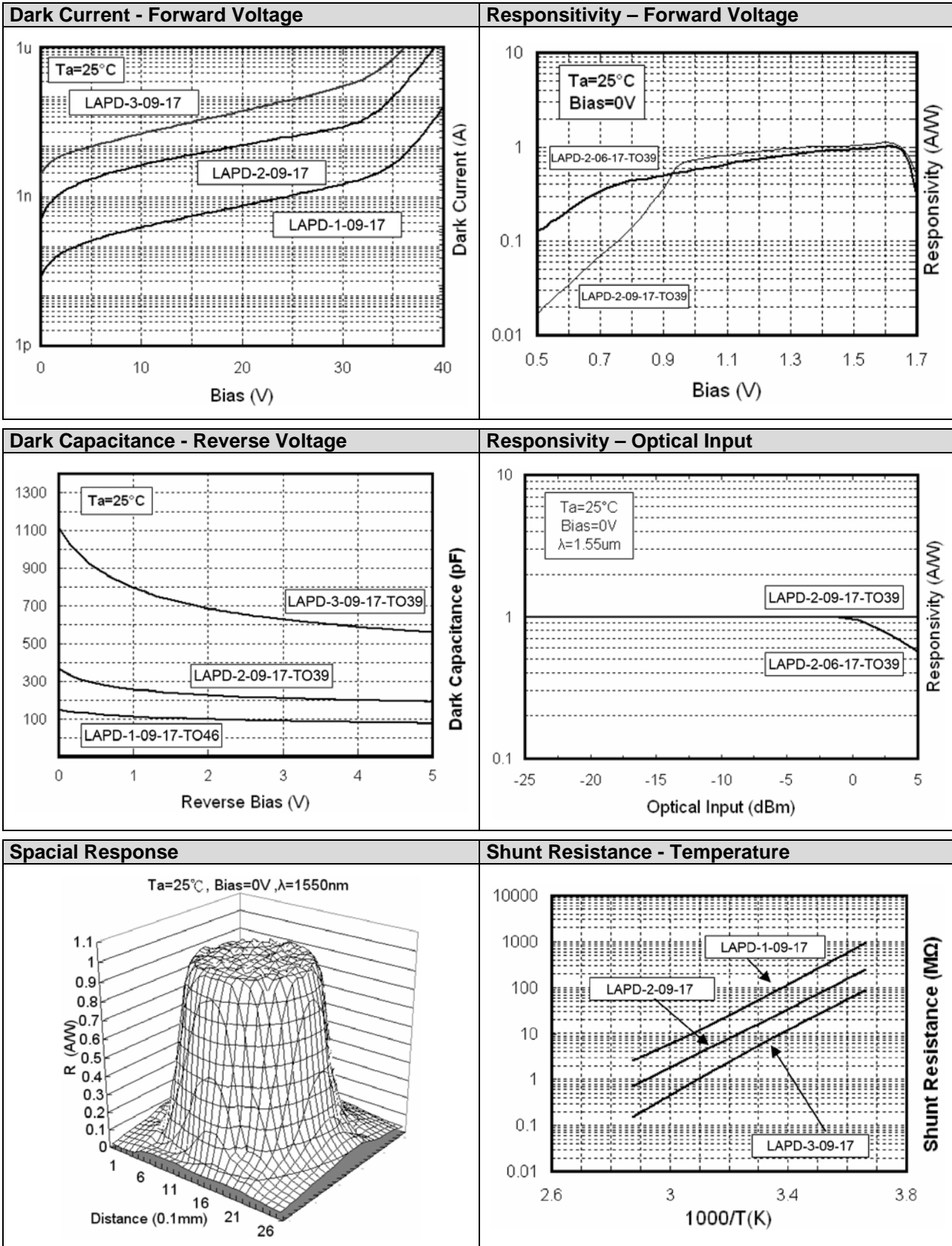
#### Specifications (25°C)

Item	Value			Unit	
	Min.	Typ.	Max.		
Wavelength Range	0.9 - 1.7			$\mu\text{m}$	
Active Aperture	Ø1			mm	
Responsivity (0 V)	650 nm	0.02	0.05	-	A/W
	850 nm	0.10	0.20	-	
	1310 nm	0.80	0.90	-	
	1550 nm	0.85	0.95	-	
Shunt Resistance	25	80	-	M $\Omega$	
Capacitance	0 V	-	80	160	pF
	-5 V	-	40	80	
Dark Current (-5 V)	-	2	10	nA	
Saturation Power (1550 nm, 0 V)	-	-3	-	dBm	
D* (1550 nm)	2.5	5	-	10 <sup>12</sup> Jones	
Rise / Fall Time (5V and 0V bias)	4.4	-	8.8	ns	





## Typical Performance Curves





## Package Dimensions

