

JMSLPD-1000-V2.00

1mm InGaAs PIN Photodiode

FEATURES:

- High Responsivity at 0.9um-1.7um
- Highly Reliable Planar Device
- Low Leakage Current
- High Shunt Resistance
- Wide Dynamic Range
- Responsivity (s) 0.6um-1.7um

APPLICATIONS:

- Power Monitoring
- Spectral Analysis
- Covert IR Sensing
- Light Detection and Ranging
- Remote Temperature Sensors
- Humidity Detection
- Gas Leak Detection

SPECIFICATIONS ($T_a=25^{\circ}\text{C}$) :

Electro-Optical Characteristics (@ $T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Responsivity	R	$V_r=5\text{V}; \lambda=1310\text{nm}$	0.80	0.90	-	A/W
Dark Current	I_d	$V_r=5\text{V}$	-	2	10	nA
Breakdown Voltage	V_b	$I_r=10\mu\text{A}$	20	35	-	V
Capacitance	C	$V_r=0\text{V}; f=1\text{MHz}$		100	200	pF

Absolute maximum ratings:

Parameters	Symbol	Min	Max	Unit	Conditions
Storage Temperature	Tstg	-40	100	$^{\circ}\text{C}$	
Operating Temperature	Top	-40	85	$^{\circ}\text{C}$	
Reverse Current	I _r	-	2	mA	
Reverse Voltage	V _{rd}	-	20	V	
Forward Current	I _{fd}	-	10	mA	

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MECHANICAL DRAWING:

Structure

InGaAs / InP PIN Chip

P-electrode (anode) : Gold 1.0um minimum.

N-electrode (cathode) : Gold

Dimension

Chip Length : $1380 \pm 20\mu\text{m}$

Chip Width : $1380 \pm 20\mu\text{m}$

Thickness : $200 \pm 30\mu\text{m}$

Active Area : $1000\mu\text{m}$ in diameter

Unit: μm

