

## Custom PIN Diode Device Requirements

### INTRODUCTION

MNI needs Customers to provide the following information that includes targetted application, electrical characteristics and layout constraints to precisely characterize the PIN diode to be designed and produced.

### TARGETTED APPLICATION

In knowing the targetted application, MNI can better participate to the specification of the PIN diode and more accurately design the device.

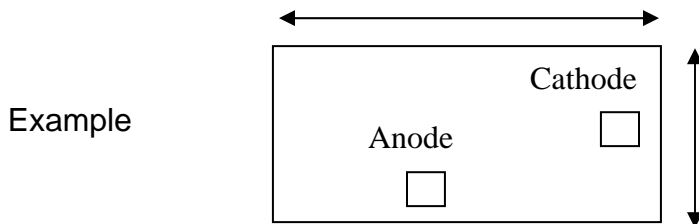
### ELECTRICAL CHARACTERISTICS

Symbols	Parametric Values						Test Conditions	Units
	Customer requirements			Usual limits				
	min*	typ*	max*	min	typ	max		
Diode Capacitance				6	-	10	$V_{reverse} = 1V$	pF
Responsivity				370	-	400	$I_{photo} = 100nA$	$\mu W/mW$
Forward Voltage				0.5	-	0.7	$I_{forward} = 25uA$	V
Forward Voltage				0.6	-	0.8	$I_{forward} = 1mA$	V
Series Resistance				10	-	30	$I_{forward} = 1mA$	$\Omega$
Breakdown Voltage				10		14	$I_{reverse} = 10uA$	V

\*Note- Blank fields must be filled with Customer's expected parameters

### DIE SIZE / LAYOUT

Customer to provide layout information including anode and cathode position



### PIN DIODE TYPICAL PROCESSING (for information only)

- 6" Wafers
- Material: High Resistivity N-type
- Wafer Thickness: 4 – 15mils (1.02mm – 3.81mm)
- Top Side Metal: AL/Si 1 – 2 $\mu$ m
- Active Area: 1 - 4mm<sup>2</sup>