

# Low Leakage Pico Amp Diodes



## JPAD5 / JPAD10 / JPAD20 / JPAD50 / JPAD100 / JPAD200 SSTPAD5 / SSTPAD10 / SSTPAD20 / SSTPAD50 / SSTPAD100 / SSTPAD200

### FEATURES

- Low Leakage ..... 5 pA (JPAD5)
- High Breakdown Voltage ..... -60 V typical
- Low Capacitance ..... 1.5 pf

### APPLICATIONS

- High Impedance Diode Switching
- High Dynamic Range Log Amps
- High Isolation Protection Circuits

### DESCRIPTION

The JPAD series is a low leakage, high speed diode used for input protection circuitry and fast switching. These devices are housed in a plastic TO-92 package for automated high speed assembly. The design and processing of this series results in very low leakage and low capacitance making it an excellent choice vs conventional diodes.

### ORDERING INFORMATION

Part	Package	Temperature Range
JPAD5-200	Plastic TO-92	-55°C to +135°C
SSTPAD5-200	Plastic SOT-23	-55°C to +135°C
XPAD5-200	Sorted Chips in Carriers	-55°C to +135°C

### PIN CONFIGURATION

PLASTIC

TO-92 (MODIFIED)

C A

SOT-23

A C

Note: Use only cathode "C" pin.

PRODUCT MARKING (SOT-23)	
SSTPAD5	T05
SSTPAD10	T10
SSTPAD20	T20
SSTPAD50	T50
SSTPAD100	T11
SSTPAD200	T21

BOTTOM VIEW

A C

### SCHEMATIC DIAGRAM



**JPAD5 / JPAD10 / JPAD20 / JPAD50 / JPAD100 / JPAD200**  
**SSTPAD5 / SSTPAD10 / SSTPAD20 / SSTPAD50 / SSTPAD100 / SSTPAD200**

**ABSOLUTE MAXIMUM RATINGS (25°C)**

Forward Current . . . . . 10 mA  
 Total Device Dissipation . . . . . 360 mW  
 Storage Temperature Range . . . . . -55°C to 125°C  
 Lead Temperature (1/16" from case for 10 seconds) . . . . . 300°C

**ELECTRICAL CHARACTERISTICS (25°C Unless otherwise noted)**

SYMBOL	CHARACTERISTICS	MIN	TYP	MAX	UNIT	TEST CONDITIONS
<b>STATIC</b>						
I <sub>R</sub>	Reverse Current	PAD5		-5	pA	V <sub>R</sub> = -20 V
		PAD10		-10		
		PAD20		-20		
		PAD50		-50		
		PAD100		-100		
		PAD200		-200		
B <sub>VR</sub>	Breakdown Voltage (Reverse)	-35	-60		V	I <sub>R</sub> = -1mA
V <sub>F</sub>	Forward Voltage Drop		0.8	1.5	V	I <sub>F</sub> = 5 mA
<b>DYNAMIC</b>						
C <sub>R</sub>	Capacitance		1.5	2.0	pF	V <sub>R</sub> = -5 V, f = 1 MHz

NOTE: Product available in surface mount SOT-23 upon request. Contact factory for further information.