Low Leakage
Pico Amp Diodes

calogic
CORPORATION

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

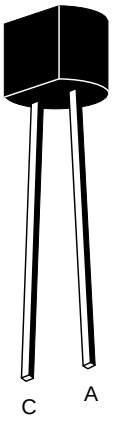
The JPAD series is a low leakage, high speed diode used for input protection circuitry and fast switching. These devices are housed in a plastic TO-92 package for automated high speed assembly. The design and processing of this series results in very low leakage and low capacitance making it an excellennt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

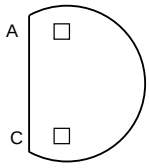
ORDERING INFORMATION

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

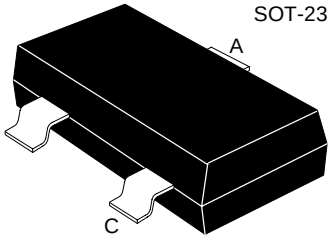




BOTTOM VIEW

5007, 5010

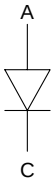
SOT-23



Note: Use only cathode "C" pin.

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

SCHEMATIC DIAGRAM



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
STATIC							
I_R	Reverse Current	PAD5			-5	pA	V_R = -20 V
		PAD10			-10		
		PAD20			-20		
		PAD50			-50		
		PAD100			-100		
		PAD200			-200		
B_{VR}	Breakdown Voltage (Reverse)		-35	-60		V	I_R = -1mA
V_F	Forward Voltage Drop			0.8	1.5	V	IF = 5 mA
DYNAMIC							
C_R	Capacitance			1.5	2.0	pF	V_R = -5 V, f = 1 MHz

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