

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

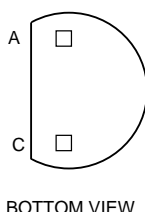
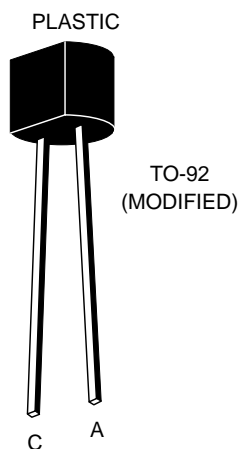
DESCRIPTION

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.

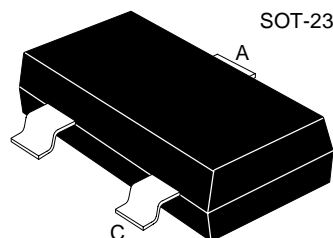
ORDERING INFORMATION

| 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



BOTTOM VIEW

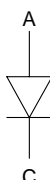


Note: Use only cathode "C" pin.

5007, 5010

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

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 |
|-----------------|-----------------------------|--------|-----|-----|------|----------------------------------|
| 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 | I _F = 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.