

## Linear Systems replaces discontinued Siliconix PAD2

The PAD2 is a low leakage Pico-Amp Diode packaged in hermetic TO-72

The PAD2 extremely low-leakage diode provides a superior alternative to conventional diode technology when reverse current (leakage) must be minimized. The PAD2 features a leakage current of -2 pA and is well suited for use in applications such as input protection for operational amplifiers.

### PAD2 Benefits:

- Negligible Circuit Leakage Contribution
- Circuit "Transparent" Except to Shunt High-Frequency Spikes
- Simplicity of Operation

### PAD2 Applications:

- Op Amp Input Protection
- Multiplexer Overvoltage Protection

### FEATURES

DIRECT REPLACEMENT FOR SILICONIX PAD2

REVERSE BREAKDOWN VOLTAGE	$BV_R \geq -45V$
ULTRALOW LEAKAGE	$\leq 2 \text{ pA}$
REVERSE CAPACITANCE	$C_{RSS} \leq 2.0\text{pF}$

**ABSOLUTE MAXIMUM RATINGS**  
@ 25°C (unless otherwise noted)

### Maximum Temperatures

Storage Temperature	-65°C to +150°C
Operating Junction Temperature	-55°C to +135°C

### Maximum Power Dissipation

Continuous Power Dissipation	300mW
------------------------------	-------

### MAXIMUM CURRENT

Forward Current (Note 1)	50mA
--------------------------	------

### PAD2 ELECTRICAL CHARACTERISTICS @ 25°C (unless otherwise noted)

SYMBOL	CHARACTERISTICS	MIN.	TYP.	MAX.	UNITS	CONDITIONS
$BV_R$	Reverse Breakdown Voltage	-45	--	--	V	$I_R = -1\mu A$
$V_F$	Forward Voltage	--	0.8	1.5	V	$I_F = 5\text{mA}$
$C_{RSS}$	Total Reverse Capacitance	--	1.5	2	pF	$V_R = -5V, f = 1\text{MHz}$
$I_R$	Maximum Reverse Leakage Current	--	--	-2	pA	$V_R = -20V$

### Notes:

1. Absolute maximum ratings are limiting values above which PAD2 serviceability may be impaired.

### Available Packages:

PAD2 in TO-72  
PAD2 available as bare die

Please contact Micross for full package and die dimensions



### Micross Components Europe

Tel: +44 1603 788967  
Email: [chipcomponents@micross.com](mailto:chipcomponents@micross.com)  
Web: <http://www.micross.com/distribution.com>

TO-72 (Bottom View)

