PAD1
LOW LEAKAGE
PICO-AMP DIODE

Linear Systems replaces discontinued Siliconix PAD1

The PAD1 is a low leakage Pico-Amp Diode packaged in hermetic TO-72

The PAD1 extremely low-leakage diode provides a superior alternative to conventional diode technology when reverse current (leakage) must be minimized. The PAD1 features a leakage current of -1 pA and is well suited for use in applications such as input protection for operational amplifiers.

PAD1 Benefits:

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

PAD1 Applications:

- Op Amp Input Protection
- Multiplexer Overvoltage Protection

FEATURES	
DIRECT REPLACEMENT FOR SILICONIX PAD1	
REVERSE BREAKDOWN VOLTAGE	$BV_R \geq -45V$
ULTRALOW LEAKAGE	≤ 1 pA
REVERSE CAPACITANCE	$C_{rss} \leq 0.8pF$
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

PAD1 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	$I_F = 5mA$
C_{rss}	Total Reverse Capacitance	--	0.5	0.8	pF	$V_R = -5V$, f = 1MHz
I_R	Maximum Reverse Leakage Current	--	--	-1	pA	$V_R = -20V$

Notes:

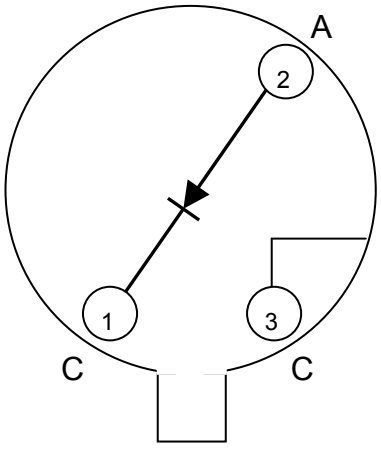
1. Absolute maximum ratings are limiting values above which PAD1 serviceability may be impaired.

Available Packages:

PAD1 in TO-72
PAD1 available as bare die

Please contact Micross for full package and die dimensions

TO-72 (Bottom View)



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