

Linear Systems replaces discontinued Siliconix PAD1

LSPAD1 is a low leakage Pico-Amp Diode packaged in hermetic TO-72

The LSPAD1 extremely low-leakage diode provides a superior alternative to conventional diode technology when reverse current (leakage) must be minimized. The LSPAD1 features a leakage current of -1 pA and is well suited for use in applications such as input protection for operational amplifiers.

LSPAD1 Benefits:

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

LSPAD1 Applications:

- Op Amp Input Protection
- Multiplexer Overvoltage Protection

FEATURES

DIRECT REPLACEMENT FOR SILICONIX PAD1

REVERSE BREAKDOWN VOLTAGE $BV_R \geq -45V$

ULTRALOW LEAKAGE $\leq 1 \text{ pA}$

REVERSE CAPACITANCE $C_{RSS} \leq 0.8\text{pF}$

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

LSPAD1 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	--	0.5	0.8	pF	$V_R = -5V, f = 1\text{MHz}$
I_R	Maximum Reverse Leakage Current	-1	--	-1	pA	$V_R = -20V$

Notes:

1. Absolute maximum ratings are limiting values above which LSPAD1 serviceability may be impaired.

Available Packages:

LSPAD1 in TO-72
LSPAD1 available as bare die

Please contact Micross for full package and die dimensions



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TO-72 (Bottom View)

