



# 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 <sub>R</sub> ≥ -45V							
ULTRALOW LEAKAGE	≤ 1 pA						
REVERSE CAPACITANCE	C <sub>rss</sub> ≤ 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	21						
Continuous Power Dissipation	ous Power Dissipation 300mW						
MAXIMUM CURRENT	7						
Forward Current (Note 1)	50mA						

LSPAD1 ELECTRICAL CHARACTERISTICS @ 25°C (unless otherwise noted)

SYMBOL	CHARACTERISTICS	MIN.	TYP.	MAX.	UNITS	CONDITIONS
$BV_R$	Reverse <mark>Br</mark> eakdown Voltage	<del>-4</del> 5-	1		V	I <sub>R</sub> =-1μΑ
$V_{F}$	Forward <mark>Vo</mark> ltage		0.8	1.5	V	$I_F = 5mA$
$C_{rSS}$	Total Reverse Capacitance		0.5	0.8	pF	$V_R = -5V$ , $f = 1$ MHz
I <sub>R</sub>	Maximum Reverse Leakage Current		-	-1	pA	V <sub>R</sub> = - 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



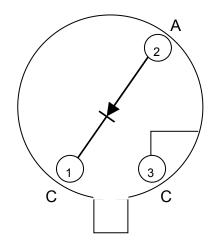
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TO-72 (Bottom View)



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