

Linear Systems replaces discontinued Siliconix PAD100

LSPAD100 is a low leakage Pico-Amp Diode packaged in hermetic TO-72

The LSPAD100 extremely low-leakage diode provides a superior alternative to conventional diode technology when reverse current (leakage) must be minimized. The LSPAD100 features a leakage current of ≤ 100 pA and is well suited for use in applications such as input protection for operational amplifiers.

LSPAD100 Benefits:

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

LSPAD100 Applications:

- Op Amp Input Protection
- Multiplexer Overvoltage Protection

FEATURES

DIRECT REPLACEMENT FOR SILICONIX PAD100

REVERSE BREAKDOWN VOLTAGE $BV_R \geq -45V$

ULTRALOW LEAKAGE ≤ 100 pA

REVERSE CAPACITANCE $C_{RSS} \leq 2.0pF$

ABSOLUTE MAXIMUM RATINGS

@ 25°C (unless otherwise noted)

Maximum Temperatures

Storage Temperature $-65^\circ C$ to $+150^\circ C$

Operating Junction Temperature $-55^\circ C$ to $+135^\circ C$

Maximum Power Dissipation

Continuous Power Dissipation 300mW

MAXIMUM CURRENT

Forward Current (Note 1) 50mA

LSPAD100 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 | -- | 1.5 | 2 | pF | $V_R = -5V, f = 1MHz$ |
| I_R | Maximum Reverse Leakage Current | -- | -- | -100 | pA | $V_R = -20V$ |

Notes:

1. Absolute maximum ratings are limiting values above which LSPAD100 serviceability may be impaired.

Available Packages:

LSPAD100 in TO-72
LSPAD100 available as bare die

Please contact Micross for full package and die dimensions



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TO-72 (Bottom View)

