





Linear Systems replaces discontinued Siliconix SSTPAD20

The LSSSTPAD20 is a low leakage Pico-Amp Diode packaged in SOT-23

The LSSSTPAD20 extremely low-leakage diode provides a superior alternative to conventional diode technology when reverse current (leakage) must be minimized. The LSSSTPAD20 features a leakage current of -20 pA and is well suited for use in applications such as input protection for operational

LSSSTPAD20 Benefits:

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

LSSSTPAD20 Applications:

- Op Amp Input Protection
- Multiplexer Overvoltage Protection

| FEATURES | | | | | | | |
|--|------------------------|--|--|--|--|--|--|
| DIRECT REPLACEMENT FOR SILICONIX SSTPAD20 | | | | | | | |
| VERSE BREAKDOWN VOLTAGE BV _R ≥ -30V | | | | | | | |
| ULTRALOW LEAKAGE | ≤ 20 pA | | | | | | |
| REVERSE CAPACITANCE | C _{rss} ≤ 2pF | | | | | | |
| 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 | 350mW | | | | | | |
| MAXIMUM CURRENT | | | | | | | |
| Forward Current (Note 1) | 10mA | | | | | | |

LSSSTPAD20 ELECTRICAL CHARACTERISTICS @ 25°C (unless otherwise noted)

| SYMBOL | CHARACTERISTICS | MIN. | TYP. | MAX. | UNITS | CONDITIONS |
|------------------|---|------------------|------|------|-------|---------------------------|
| BV _R | Reverse <mark>Br</mark> eakdown Voltage | -35 - | 1 | | V | I _R =-1μΑ |
| V _F | Forward Voltage | | 0.8 | 1.5 | V | $I_F = 5mA$ |
| C _{rSS} | Total Reverse Capacitance | | 1.5 | 2 | pF | $V_R = -5V$, $f = 1$ MHz |
| I _R | Maximum Reverse Leakage Current | _ | 1 | -20 | pA | V _R = - 20V |

Notes:

1. Absolute maximum ratings are limiting values above which LSSSTPAD20 serviceability may be impaired.

Available Packages:

LSSSTPAD20 in SOT-23 LSSSTPAD20 available as bare die

Please contact Micross for full package and die dimensions



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SOT-23 (Top View)

