

## LSDPAD50 LOW LEAKAGE PICO-AMP DUAL DIODE



# Linear Systems replaces discontinued Siliconix LSDPAD50

## The LSDPAD50 is a low leakage Monolithic Dual Pico-Amp Diode

The LSDPAD50 extremely low-leakage monolithic dual diode provides a superior alternative to conventional diode technology when reverse current (leakage) must be minimized. In addition the monolithic dual construction allows excellent capacitance matching per diode. The LSDPAD50 features a leakage current of -50 pA and is well suited for use in applications such as input protection for operational amplifiers.

#### LSDPAD50 Benefits:

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

### LSDPAD50 Applications:

- Op Amp Input Protection
- Multiplexer Overvoltage Protection

FEATURES					
DIRECT REPLACEMENT FOR SILICONIX LSDPAD50					
HIGH ON ISOLATION	20fA				
EXCELLENT CAPACITANCE MATCHING	$\Delta C_R \le 0.5 pF$				
ULTRALOW LEAKAGE	≤ 50 pA				
REVERSE BREAKDOWN VOLTAGE	BV <sub>R</sub> ≥ -45V				
REVERSE CAPACITANCE $C_{rss} \le 2.0 pF$					
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 500mW					
MAXIMUM CURRENT					
Forward Current (Note 1)	50mA				

LSDPAD50 ELEC	CTRICAL CHARACTERISTICS @ 25°C (un	less other	wise noted			
SYMBOL	CHARACTERISTICS	MIN.	TYP.	MAX.	UNITS	CONDITIONS
$BV_R$	Reverse <mark>Br</mark> eakd <mark>o</mark> wn <mark>V</mark> oltage	-45	1		V	$I_R = -1\mu A$
$V_{F}$	Forward Voltage	_	0.8	1.5	>	I <sub>F</sub> = 1mA
$C_{rSS}$	Total Reverse Capacitance		-	2.0	pF	$V_R = -5V$ , $f = 1MHz$
C <sub>R1</sub> -C <sub>R2</sub>	Differential Capacitance (ΔC <sub>R</sub> )		-	0.5	pF	$V_{R1} = V_{R2} = -5V, f = 1MHz$
I <sub>R</sub>	Maximum Reverse Leakage Current			-50	рА	V <sub>R</sub> = - 20V

#### Notes:

1. Absolute maximum ratings are limiting values above which LSDPAD50 serviceability may be impaired.

#### Available Packages:

LSDPAD50 in TO-72 LSDPAD50 available as bare die

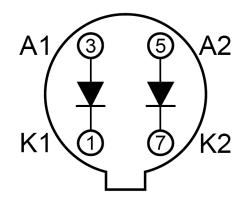
Please contact Micross for full package and die dimensions



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Email: <a href="mailto:chipcomponents@micross.com">chipcomponents@micross.com</a> Web: <a href="http://www.micross.com/distribution">http://www.micross.com/distribution</a> TO-72 (Bottom View)



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