

DPAD5 LOW LEAKAGE PICO-AMP DUAL DIODE



Linear Systems replaces discontinued Siliconix DPAD5

The DPAD5 is a low leakage Monolithic Dual Pico-Amp Diode

The DPAD5 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 DPAD5 features a leakage current of -5 pA and is well suited for use in applications such as input protection for operational amplifiers.

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

DPAD5 Applications:

- Op Amp Input Protection
- Multiplexer Overvoltage Protection

FEATURES						
DIRECT REPLACEMENT FOR SILICONIX DPAD5						
HIGH ON ISOLATION	20fA					
EXCELLENT CAPACITANCE MATCHING	$\Delta C_R \le 0.5 pF$					
ULTRALOW LEAKAGE	≤ 5 pA					
REVERSE BREAKDOWN VOLTAGE	BV _R ≥ -45V					
REVERSE CAPACITANCE	$C_{rss} \le 2.0pF$					
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						

DPAD5 ELECTR	ICAL CHARACTERISTICS @ 25°C (unless	otherwis	e noted)	١ '		
SYMBOL	CHARACTERISTICS	MIN.	TYP.	MAX.	UNITS	CONDITIONS
BV _R	Reverse <mark>Br</mark> eakd <mark>o</mark> wn <mark>V</mark> oltage	-45			V	$I_R = -1\mu A$
V_{F}	Forward Voltage	_	0.8	1.5	>	I _F = 1mA
C_{rSS}	Total Reverse Capacitance			2.0	pF	$V_R = -5V$, $f = 1MHz$
C _{R1} -C _{R2}	Differential Capacitance (ΔC _R)			0.5	pF	$V_{R1} = V_{R2} = -5V, f = 1MHz$
I _R	Maximum Reverse Leakage Current			-5	pA	V _R = - 20V

Notes:

1. Absolute maximum ratings are limiting values above which DPAD5 serviceability may be impaired.

Available Packages:

DPAD5 in TO-72

DPAD5 available as bare die

Please contact Micross for full package and die dimensions

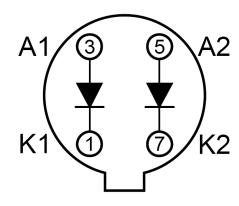


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TO-72 (Bottom View)



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