

### DPAD10 LOW LEAKAGE PICO-AMP DUAL DIODE



# Linear Systems replaces discontinued Siliconix DPAD10

## The DPAD10 is a low leakage Monolithic Dual Pico-Amp Diode

The DPAD10 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 DPAD10 features a leakage current of -10 pA and is well suited for use in applications such as input protection for operational amplifiers.

#### **DPAD10 Benefits:**

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

#### **DPAD10 Applications:**

- Op Amp Input Protection
- Multiplexer Overvoltage Protection

FEATURES					
DIRECT REPLACEMENT FOR SILICONIX DPAD10					
HIGH ON ISOLATION	20fA				
EXCELLENT CAPACITANCE MATCHING	$\Delta C_R \le 0.5 pF$				
ULTRALOW LEAKAGE	≤ 10 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				

DPAD10 ELECT	RICAL CHARACTERISTICS @ 25°C (unles	ss otherw	ise noted)	\		
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 <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		-	-10	рА	V <sub>R</sub> = - 20V

#### Notes:

1. Absolute maximum ratings are limiting values above which DPAD10 serviceability may be impaired.

#### Available Packages:

DPAD10 in TO-72

DPAD10 available as bare die

Please contact Micross for full package and die dimensions

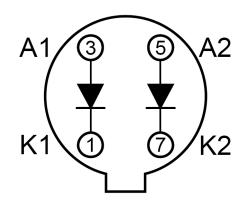


Micross Components Europe

Tel: +44 1603 788967

Email: <a href="mailto:chipcomponents@micross.com">chipcomponents@micross.com</a>
Web: <a href="mailto:http://www.micross.com/distribution">http://www.micross.com/distribution</a>

TO-72 (Bottom View)



Information furnished by Linear Integrated Systems and Micross Components is believed to be accurate and reliable. However, no responsibility is assumed for its use; nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of Linear Integrated Systems.