

# DPAD1, DPAD2, DPAD5, DPAD10

## Dual Pico-AMP Diode

- High Impedance Protection Circuits

### Absolute maximum ratings at $T_A = 25^\circ\text{C}$

Continuous Forward Gate Current

50 mA

Storage Temperature Range

-55°C to +125°C

At 25°C free air temperature:  
Electrical Characteristics

		DPAD1			DPAD2			Process NJ01		
		Min	Typ	Max	Min	Typ	Max	Unit	Test Conditions	
Reverse Current	$I_R$			-1			-2	pA	$V_R = -20V$	
Breakdown Reverse Voltage	$BV_R$	-45			-45			V	$I_R = -1 \mu\text{A}$	
Forward Voltage Drop	$V_F$		0.8	1.5		0.8	1.5	V	$I_F = 5 \text{ mA}$	
Capacitance	$C_R$			0.8			0.8	pF	$V_R = -5 \text{ V}$	$f = 1 \text{ MHz}$
Differential Capacitance	$ C_{R1} - C_{R2} $			0.2			0.2	pF	$V_{R1} = V_{R2} = -5 \text{ V}$	$f = 1 \text{ MHz}$

At 25°C free air temperature:  
Electrical Characteristics

		DPAD5			DPAD10			Process NJ01		
		Min	Typ	Max	Min	Typ	Max	Unit	Test Conditions	
Reverse Current	$I_R$			-5			-10	pA	$V_R = -20V$	
Breakdown Reverse Voltage	$BV_R$	-45			-45			V	$I_R = -1 \mu\text{A}$	
Forward Voltage Drop	$V_F$		0.8	1.5		0.8	1.5	V	$I_F = 5 \text{ mA}$	
Capacitance	$C_R$			0.8			2.0	pF	$V_R = -5 \text{ V}$	$f = 1 \text{ MHz}$
Differential Capacitance	$ C_{R1} - C_{R2} $		0.2			0.2		pF	$V_{R1} = V_{R2} = -5 \text{ V}$	$f = 1 \text{ MHz}$

**TO-72 Package**  
Dimensions in Inches (mm)

**Pin Configuration**  
1 Cathode 1, 2 Anode 1,  
3 Cathode 2, 4 Anode 2

**Surface Mount**  
**SOIC-8 Package**

See Section G

**Pin Configuration**  
1 Cathode 1, 2 Cathode 1, 3 Anode 1,  
4 N/C, 5 Cathode 2, 6 Cathode 2,  
7 Anode 2, 8 N/C