

# 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  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$

| At 25°C free air temperature:<br>Electrical Characteristics |                     | DPAD1 |     |     | DPAD2 |     |     | Process NJ01 |                                                    |
|-------------------------------------------------------------|---------------------|-------|-----|-----|-------|-----|-----|--------------|----------------------------------------------------|
|                                                             |                     | Min   | Typ | Max | Min   | Typ | Max | Unit         | Test Conditions                                    |
| Reverse Current                                             | $I_R$               |       |     | - 1 |       |     | - 2 | pA           | $V_R = -20\text{V}$                                |
| Breakdown Reverse Voltage                                   | $BV_R$              | - 45  |     |     | - 45  |     |     | V            | $I_R = -1\text{ }\mu\text{A}$                      |
| 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:<br>Electrical Characteristics |                     | DPAD5 |     |     | DPAD10 |     |      | Process NJ01 |                                                    |
|-------------------------------------------------------------|---------------------|-------|-----|-----|--------|-----|------|--------------|----------------------------------------------------|
|                                                             |                     | Min   | Typ | Max | Min    | Typ | Max  | Unit         | Test Conditions                                    |
| Reverse Current                                             | $I_R$               |       |     | - 5 |        |     | - 10 | pA           | $V_R = -20\text{V}$                                |
| Breakdown Reverse Voltage                                   | $BV_R$              | - 45  |     |     | - 45   |     |      | V            | $I_R = -1\text{ }\mu\text{A}$                      |
| 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

