

## 17 CHANNEL ESD PROTECTION ARRAY

### Features

- 17 channel live ESD protection up to 13KV
- EMI/RFI noise filter for high frequencies

### Applications

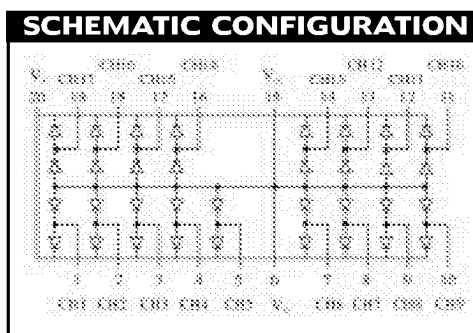
- Live ESD protection for printer port up to 13KV
- Protection of IC terminals which are exposed to ESD discharge during operation
- Serial port ESD protection

### Product Description

The PDN002 is a general purpose ESD array which is well-suited to ensure protection of sensitive IC terminals which may be exposed through pin connections "to the outside world." These include parallel printer ports, and any other external connection. The PDN002 will effectively discharge up to 13 KV (human body mode, 100pF through 1.5KΩ).

STANDARD SPECIFICATIONS		
ABSOLUTE MAXIMUM RATINGS		
Parameter	Symbol	Rating
Supply Voltage	VP - VN	-0.3V to +12V
Voltage at any channel input, VN = GND	V <sub>signal</sub>	-0.5 ... VP +0.5V
Channel clamp current (continuous)	I <sub>clamp</sub>	±15 mA
Channel clamp current (peak, ≤ 20 ns)	I <sub>clamp</sub>	±8.7A
Power Dissipation, T <sub>A</sub> =25°C		1W
Storage Temperature	T <sub>stg</sub>	-65 ... +150°C

The absolute maximum ratings are limiting values, to be applied individually, beyond which the device may be permanently damaged. Functional operation under any of these conditions is not guaranteed. Exposing the device to its absolute maximum rating may affect its reliability.



DIODE CHARACTERISTICS (T <sub>A</sub> = 0° to 70°C)				
Parameter	Conditions	Min	Typ	Max
Diode forward voltage	IF = 10 mA		0.8V	0.9V
	IF = 100 mA			1.5V
Channel leakage	VN ≤ VIN ≤ VP VP - VN = 12V		0.1μA	10μA
Channel capacitance	Vin = VN + (VP - VN)/2 VP - VN = 12V		30pF	50pF
Peak clamp voltage	Vin = ±13KV 100 pF thru 1.5 KΩ	VN-32V		VP+32V
Number of ESD pulses per input	Vin = ±13KV 100 pF thru 1.5 KΩ	100		

STANDARD PART ORDERING INFORMATION				
Package		Ordering Part Number		
Pins	Style	Tubes	Tape & Reel	Part Marking
20	SOIC	PDN002S/T	PDN002S/R	PDN002S
20	QSOP	PDN002Q/T	PDN002Q/R	PDN002Q

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