

### APPLICATIONS

- ✓ High Frequency Data Lines
- ✓ RS-232 & RS-422 Interface Networks
- ✓ Ethernet - 10/100 Base T
- ✓ Computer I/O Ports

### IEC COMPATIBILITY (EN61000-4)

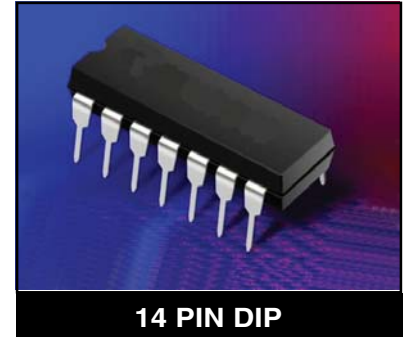
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 24A, 8/20 $\mu$ s Level 2(Line-Ground) & Level 3(Line-Line)

### FEATURES

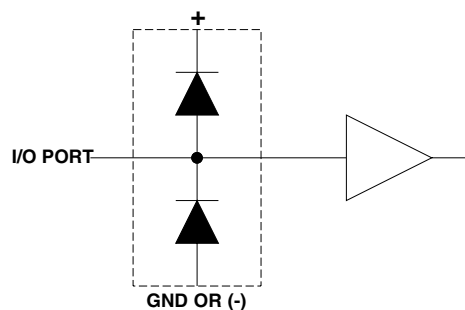
- ✓ 500 Milliwatt Continuous Power Dissipation
- ✓ ESD Protection > 40 kilovolts
- ✓ Monolithic Design
- ✓ Provides Protection for 7-8 I/O Lines
- ✓ Working Voltage > 50 Volts
- ✓ Low Leakage Current < 0.1 $\mu$ A
- ✓ Ultra Low Capacitance: 5pF Per Diode
- ✓ ROHS Compliant

### MECHANICAL CHARACTERISTICS

- ✓ Molded 14 Pin Dual-In-Line (DIP) Package
- ✓ Weight 1.2 grams (Approximate)
- ✓ Available in Lead-Free Pure-Tin Plating(Annealed)
- ✓ Solder Reflow Temperature:  
Pure-Tin - Sn, 100: 260-270°C
- ✓ Flammability Rating UL 94V-0
- ✓ Consult Factory for Leaded Device Availability
- ✓ Packaging: 25 Pieces Per Tube
- ✓ Marking: Logo, Part Number, Date Code & Pin One Defined By Dot on Top of Package



### PIN CONFIGURATION



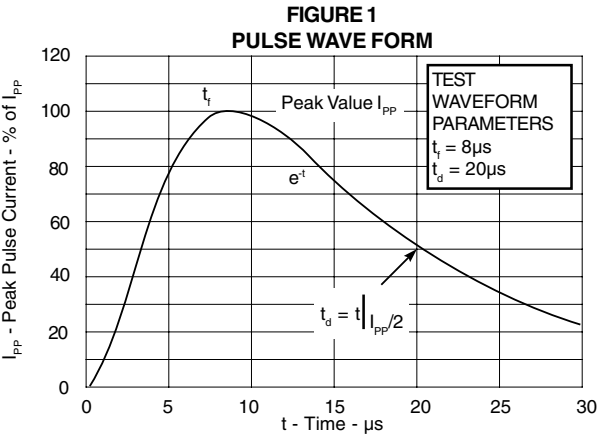
# PMAD SERIES

## DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified			
PARAMETER	SYMBOL	VALUE	UNITS
Continuous Power Dissipation	$P_{PK}$	500	Milliwatts
Continuous Forward Current (Single Diode)	$I_P$	400	mA
Repetitive Peak Forward Current @ $t_p = 5\mu s$ , $F = 50kHz$	$I_{FRM}$	700	mA
Operating Temperature	$T_A$	-55 to 150	°C
Storage Temperature	$T_{STG}$	-55 to 150	°C

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified					
PART NUMBER	REPETITIVE PEAK REVERSE VOLTAGE  @ 10 $\mu A$ $V_{RRM}$ VOLTS	MAXIMUM FORWARD PEAK PULSE CURRENT  @ 8/20 $\mu s$ $I_{FM}$ AMPS	MAXIMUM FORWARD VOLTAGE  @ 100mA $V_F$ VOLTS	MAXIMUM REVERSE LEAKAGE CURRENT  $V_{RRM}$ @ 40V $I_R$ $\mu A$	MAXIMUM CAPACITANCE (Per Diode)  @ 4V, 1MHz $C_j$ pF
See Note 1	50	40	1.2	0.1	5

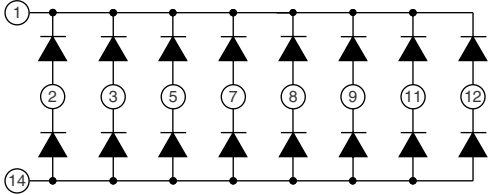
**Note 1:** Device types include: PMAD130, PMAD1105, PMAD1106 and PMAD1109. Electrical characteristics apply to all device types.



# PMAD SERIES

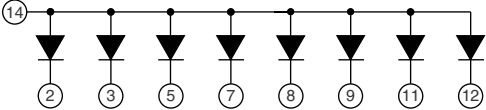
## PIN CONFIGURATIONS

**PMAD1103**



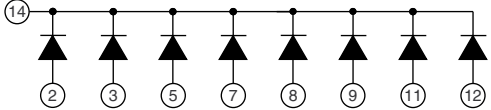
**16 DIODE ARRAY**  
NC PINS 4, 6, 10 & 13  
8 LINES OF PROTECTION

**PMAD1106**



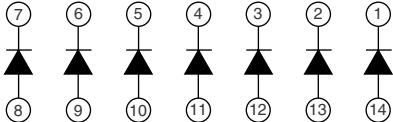
**8 DIODE COMMON ANODE ARRAY**  
NC PIN 1, 4, 6, 10 & 13  
8 LINES OF PROTECTION

**PMAD1105**



**8 DIODE COMMON CATHODE ARRAY**  
NC PINS 1, 4, 6, 10 & 13  
8 LINES OF PROTECTION

**PMAD1109**



**7 ISOLATED DIODE ARRAY (INDEPENDENT)**  
7 LINES OF PROTECTION

# PMAD SERIES

## 14 PIN DIP PACKAGE OUTLINE & DIMENSIONS

**PACKAGE OUTLINE**

**14 PIN DIP**

**DIMENSIONS**

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	-	19.1	-	0.750
B	6.10	6.60	0.240	0.260
C	7.37	7.87	0.290	0.310
D	0.25	0.50	0.010	0.020
E	0°	10°	0°	10°
F	0.51	-	0.020	-
G	-	5.08	-	0.200
H	3.17	-	0.125	-
I	-	1.78	-	0.070
J	0.84 TYP	0.84 TYP	0.033 TYP	0.033 TYP
K	0.38	0.53	0.015	0.021
L	2.54 TYP	2.54 TYP	0.100 TYP	0.100 TYP

**NOTES**

- Dimensions are exclusive of mold flash and metal burrs.

**BULK ORDERING NOMENCLATURE**

- No Suffix = Product Shipped in Tubes of 25 pcs per Tube.
- Suffix -LF = Lead-Free, Pure-Tin Plating, i.e., *PMAD1109-LF*.

**Outline & Dimensions: Rev 1 - 11/01, 06002**

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**ProTek Devices**  
 2929 South Fair Lane, Tempe, AZ 85282  
 Tel: 602-431-8101 Fax: 602-431-2288  
 E-Mail: [sales@protekdevices.com](mailto:sales@protekdevices.com)  
 Web Site: [www.protekdevices.com](http://www.protekdevices.com)