

## STEERING DIODE ARRAY

## APPLICATIONS

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

## IEC COMPATIBILITY (EN61000-4)

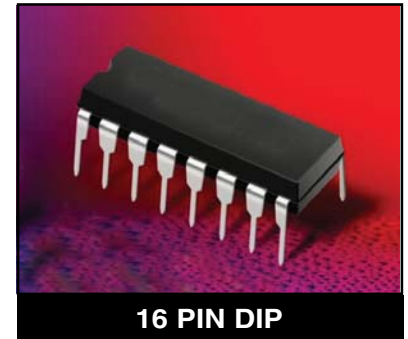
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 24A, 8/20 $\mu$ s Level 2(Line-Ground) & Level 3(Line-Line)

## FEATURES

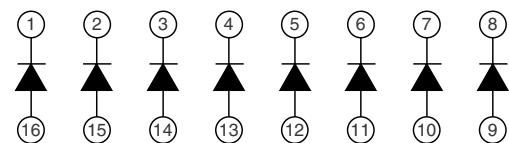
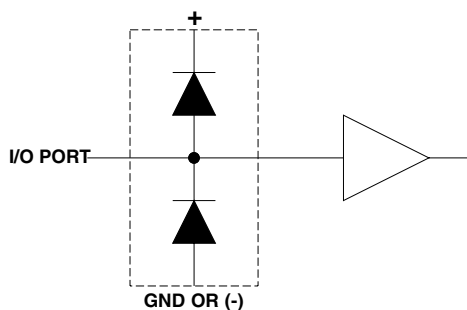
- ✓ 500 Milliwatt Continuous Power Dissipation
- ✓ ESD Protection > 40 kilovolts
- ✓ Monolithic Design
- ✓ Provides Protection for 8 I/O Lines
- ✓ Working Voltage > 50 Volts
- ✓ Low Leakage Current < 0.1 $\mu$ A
- ✓ Ultra Low Capacitance: 5pF Per Diode
- ✓ RoHS Compliant

## MECHANICAL CHARACTERISTICS

- ✓ Molded 16 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
- ✓ Consult Factory for Leaded Device Availability
- ✓ Flammability Rating UL 94V-0
- ✓ Packaging: 25 Pieces Per Tube
- ✓ Marking: Logo, Part Number, Date Code & Pin One Defined By Dot on Top of Package



## CIRCUIT DIAGRAM &amp; PIN CONFIGURATION



**8 ISOLATED DIODE ARRAY  
8 LINES OF PROTECTION**

## DEVICE CHARACTERISTICS

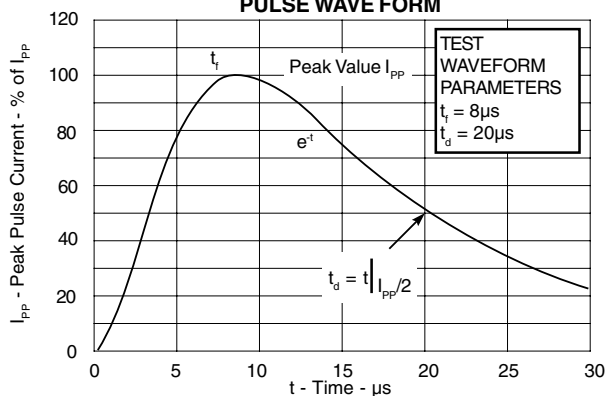
### MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

| 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

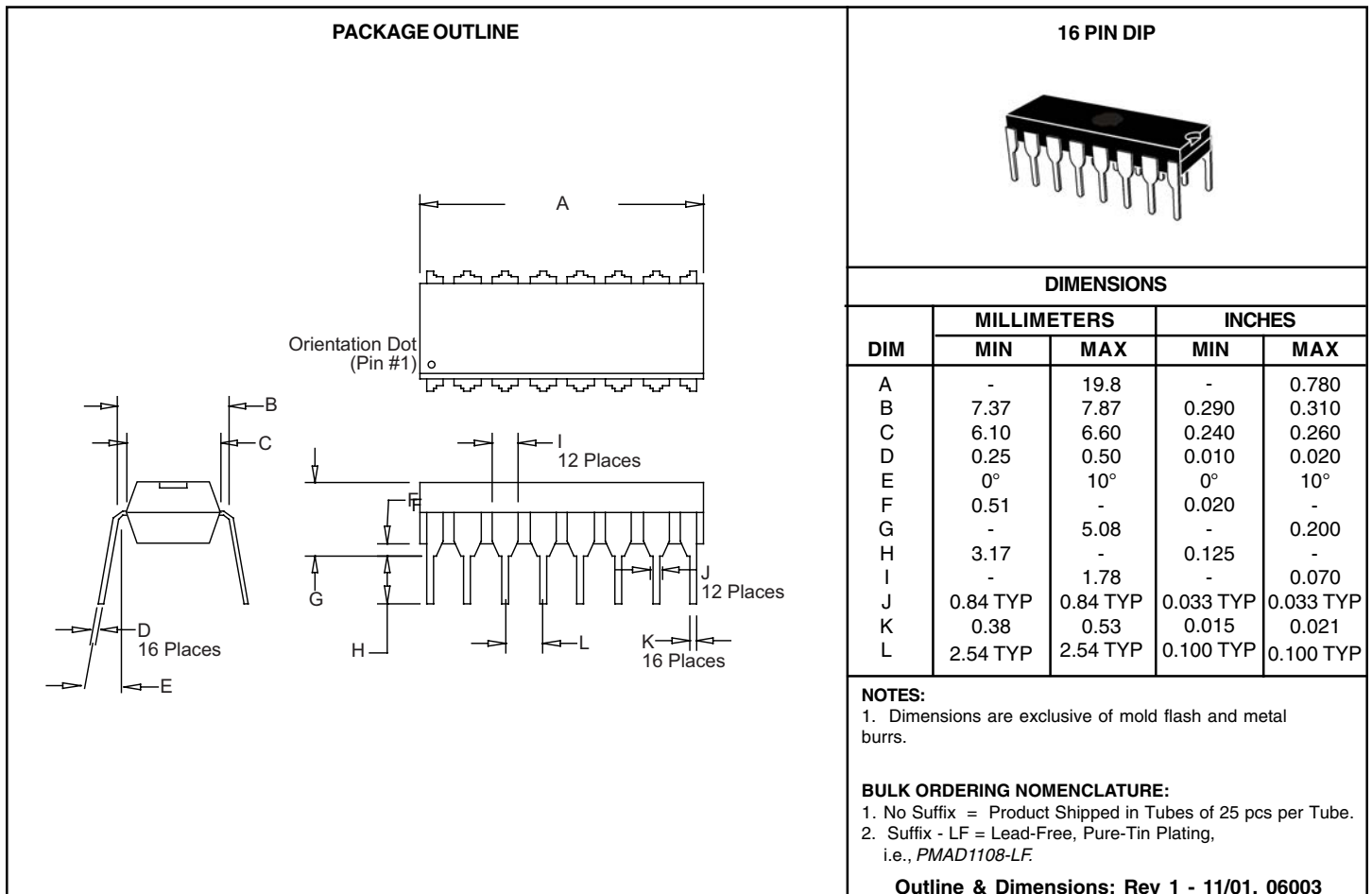
| PART NUMBER | REPETITIVE PEAK REVERSE VOLTAGE<br><br>@ 10 $\mu A$<br>$V_{RRM}$<br>VOLTS | MAXIMUM FORWARD PEAK PULSE CURRENT<br><br>@ 8/20 $\mu s$<br>$I_{FM}$<br>AMPS | MAXIMUM FORWARD VOLTAGE<br><br>@ 100mA<br>$V_F$<br>VOLTS | MAXIMUM REVERSE LEAKAGE CURRENT<br><br>$V_{RRM}$ @ 40V<br>$I_R$<br>$\mu A$ | MAXIMUM CAPACITANCE (Per Diode)<br><br>@ 4V, 1MHz<br>$C_J$<br>pF |
|-------------|---|--|--|--|--|
| PMAD1108    | 50  | 40   | 1.2  | 0.1  | 5  |

**FIGURE 1  
PULSE WAVE FORM**



# PMAD1108

## 16 PIN DIP PACKAGE OUTLINE & DIMENSIONS



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