

## 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)

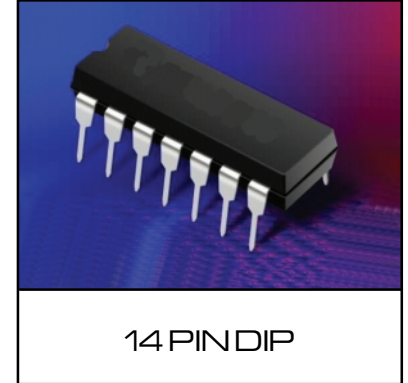
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 24A, 8/20µs Level 2(Line-Ground) & Level 3(Line-Line)

### FEATURES

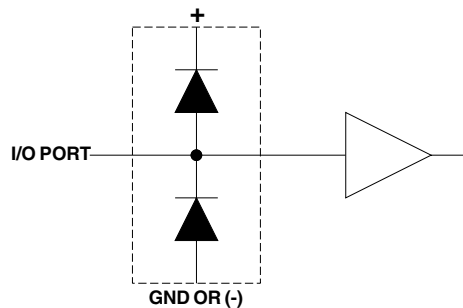
- ✓ 500 Milliwatt Continuous Power Dissipation
- ✓ ESD Protection > 40 kilovolts
- ✓ Low Insertion Loss & Cross-talk
- ✓ Provides Protection for 8 I/O Lines
- ✓ Working Voltage > 50 Volts
- ✓ **LOW LEAKAGE CURRENT < 0.1µA**
- ✓ **ULTRA LOW CAPACITANCE: 5pF Per Diode**

### MECHANICAL CHARACTERISTICS

- ✓ Molded 14 Pin Dual-In-Line (DIP) Package
- ✓ Weight 1.2 grams (Approximate)
- ✓ 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

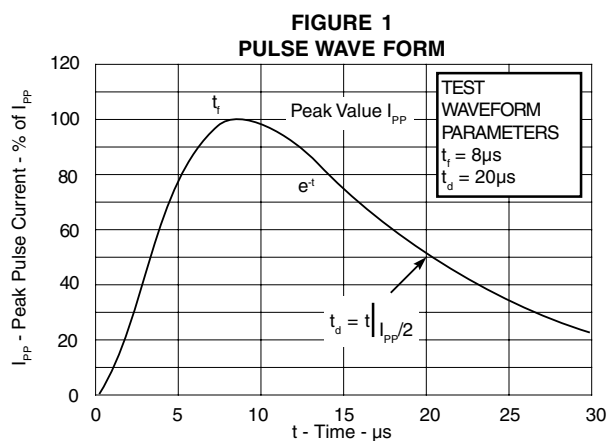


## DEVICE CHARACTERISTICS

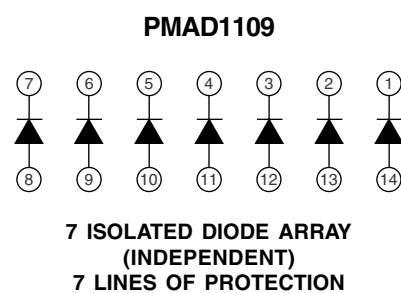
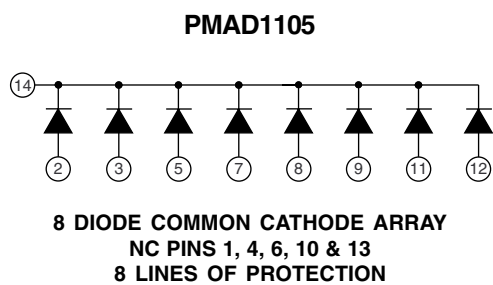
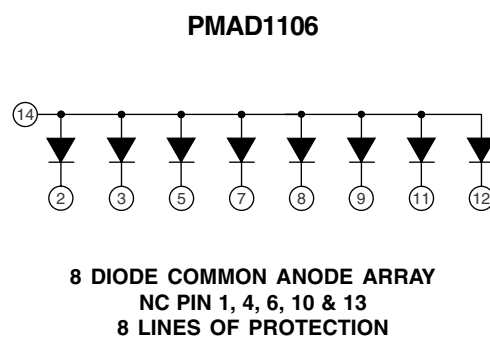
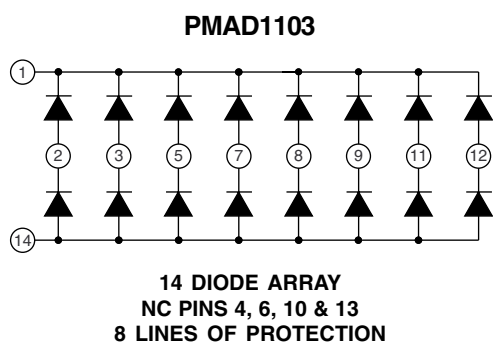
| MAXIMUM RATINGS @ 25°C Unless Otherwise Specified          |           |                |            |
|------------------------------------------------------------|-----------|----------------|------------|
| PARAMETER                                                  | SYMBOL    | VALUE          |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

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

**Note 1:** Device types include: PMAD1103, PMAD1105, PMAD1106 and PMAD1109. Electrical characteristics apply to all device types.

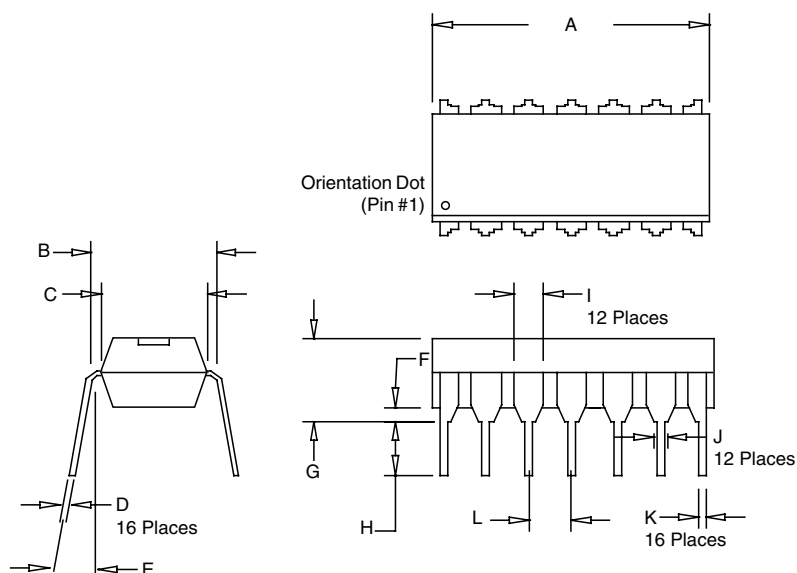


## DEVICE CHARACTERISTICS

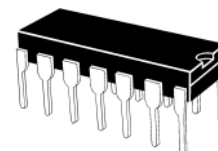


## PACKAGE OUTLINE & DIMENSIONS

### 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

1. Dimensions are exclusive of mold flash and metal burrs.

#### BULK ORDERING NOMENCLATURE

1. No Suffix = Product Shipped in Tubes of 25 pcs per Tube.

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

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