

## 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)

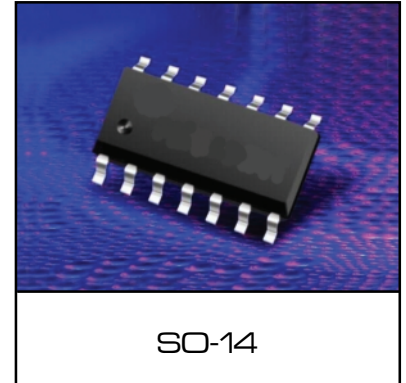
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 24A, 8/20 $\mu$ s Level 2(Line-Ground) & Level 3(Line-Line)

### FEATURES

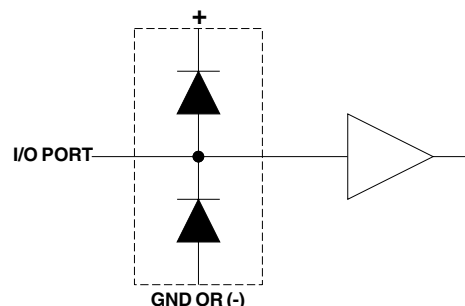
- ✓ 500 Milliwatt Continuous Power Dissipation
- ✓ ESD Protection > 40 kilovolts
- ✓ Low Insertion Loss & Cross-talk
- ✓ Provides Protection for 8 I/O Lines
- ✓ Working Voltage > 50 Volts
- ✓ **LOW LEAKAGE CURRENT < 0.1 $\mu$ A**
- ✓ **ULTRA LOW CAPACITANCE: 5pF Per Diode**

### MECHANICAL CHARACTERISTICS

- ✓ Molded JEDEC SO-14 Package
- ✓ Weight 0.15 grams (Approximate)
- ✓ Flammability Rating UL 94V-0
- ✓ 16mm Tape and Reel Per EIA Standard 481
- ✓ Marking: Logo, Part Number, Date Code & Pin One Defined By Dot on Top of Package



### CIRCUIT DIAGRAM

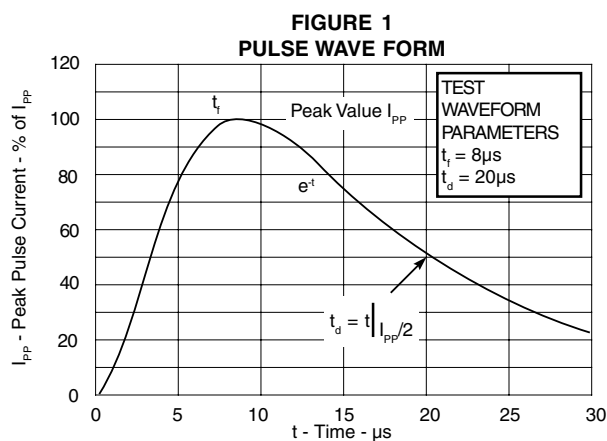


## DEVICE CHARACTERISTICS

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

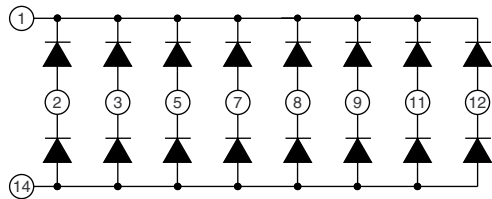
ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified					
PART NUMBER	REPETITIVE PEAK REVERSE VOLTAGE @ 10 $\mu A$ $V_{RRM}$ VOLTS	MAXIMUM FORWARD PEAK PULSE CURRENT @ 8/20 $\mu s$ $I_{FM}$ AMPS	MAXIMUM FORWARD VOLTAGE @ 100mA $V_F$ VOLTS	MAXIMUM REVERSE LEAKAGE CURRENT $V_{RRM}$ @ 40V $I_R$ $\mu A$	MAXIMUM CAPACITANCE (Per Diode) @ 4V, 1 MHz $C_i$ pF
See Note 1	50	12	1.2	0.1	5

**Note 1:** Device types include: PMMAD1103, MMAD1105, PMMAD1106 and PMMAD1109. Electrical characteristics apply to all device types.



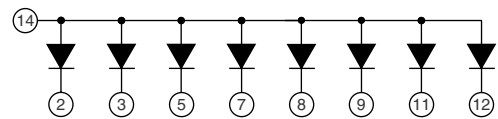
## DEVICE CHARACTERISTICS

**PMMAD1103**



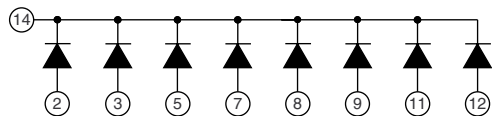
**14 DIODE ARRAY**  
**NC PINS 4, 6, 10 & 13**  
**8 LINES OF PROTECTION**

**PMMAD1106**



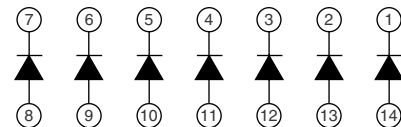
**8 DIODE COMMON ANODE ARRAY**  
**NC PIN 1, 4, 6, 10 & 13**  
**8 LINES OF PROTECTION**

**PMMAD1105**



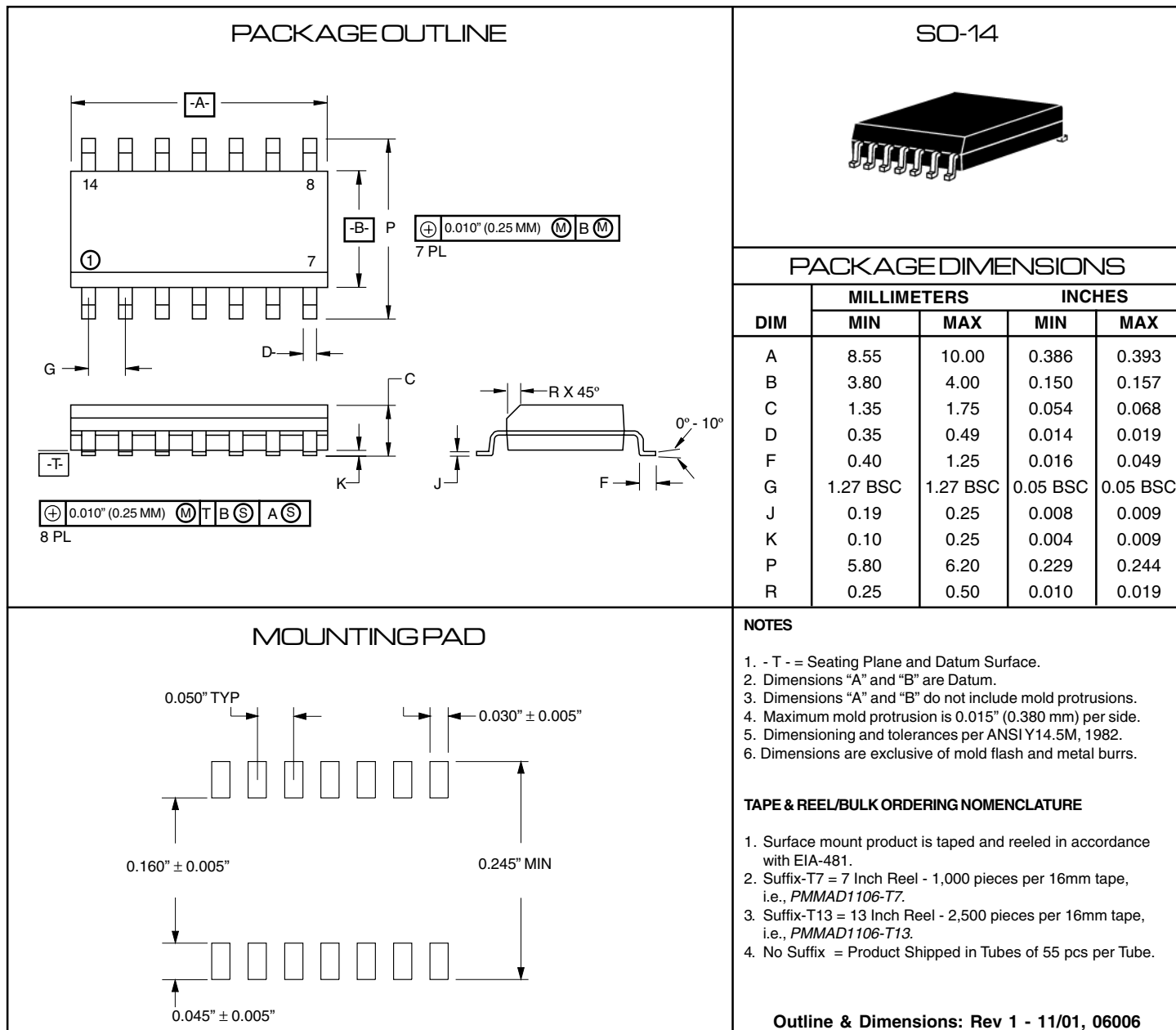
**8 DIODE COMMON CATHODE ARRAY**  
**NC PINS 1, 4, 6, 10 & 13**  
**8 LINES OF PROTECTION**

**PMMAD1109**



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

## PACKAGE OUTLINE & DIMENSIONS



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