

MONOLITHIC STEERING DIODE ARRAYS

APPLICATIONS

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

IEC COMPATIBILITY (EN61000-4)

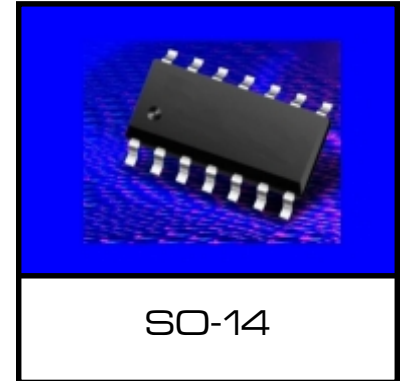
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 12A, 8/20µs - Level 1(Line-Gnd) & Level 2(Line-Line)

FEATURES

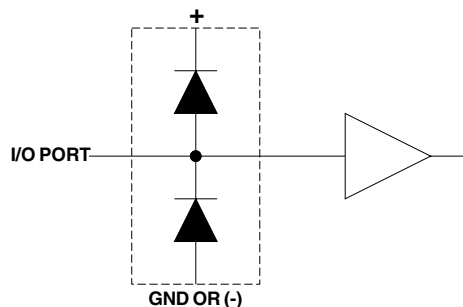
- ✓ 500 Milliwatt Continuous Power Dissipation
- ✓ ESD Protection > 40 kilovolts
- ✓ Monolithic Design
- ✓ Designed for I/O Protection
- ✓ Working Voltage > 50 Volts
- ✓ **LOW CAPACITANCE 5pF PER DIODE**

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 Number 1 Indicated By DOT on Top of Package



CIRCUIT DIAGRAM

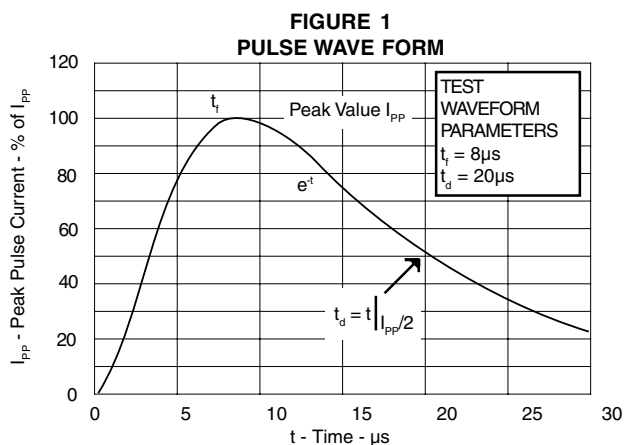


DEVICE CHARACTERISTICS

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

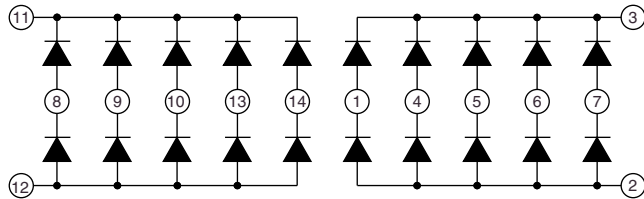
ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified					
PART NUMBER	REPETITIVE PEAK PULSE VOLTAGE @ 10μA V_{RRM} VOLTS	MAXIMUM REVERSE LEAKAGE CURRENT @ 40V I_R μA	FORWARD PEAK PULSE CURRENT @ 8/20μs I_{FM} AMPS	MAXIMUM FORWARD VOLTAGE @ 100mA V_F VOLTS	MAXIMUM CAPACITANCE (Per Diode)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

Note 1: Device types include: MMAD130, MMAD1103, MMAD1105, MMAD1106, MMAD1107 and MMAD1109. Electrical characteristics apply to all device types.



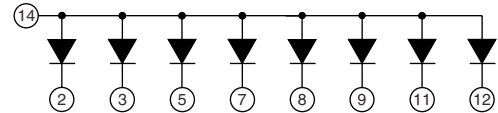
PIN CONFIGURATIONS

MMAD130



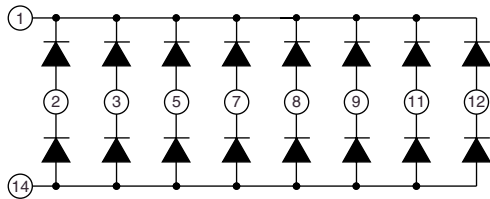
DUAL 10 DIODE ARRAY

MMAD1106



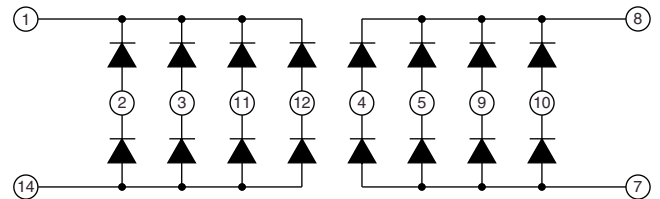
8 DIODE COMMON ANODE ARRAY
NC PIN 1, 4, 6, 10 & 13

MMAD1103



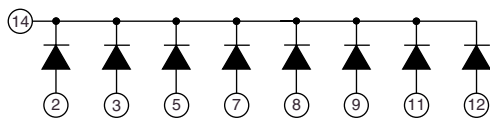
14 DIODE ARRAY
NC PINS 4, 6, 10 & 13

MMAD1107



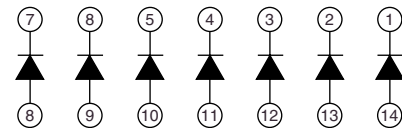
DUAL 8 DIODE ARRAY
NC PINS 6 & 13

MMAD1105



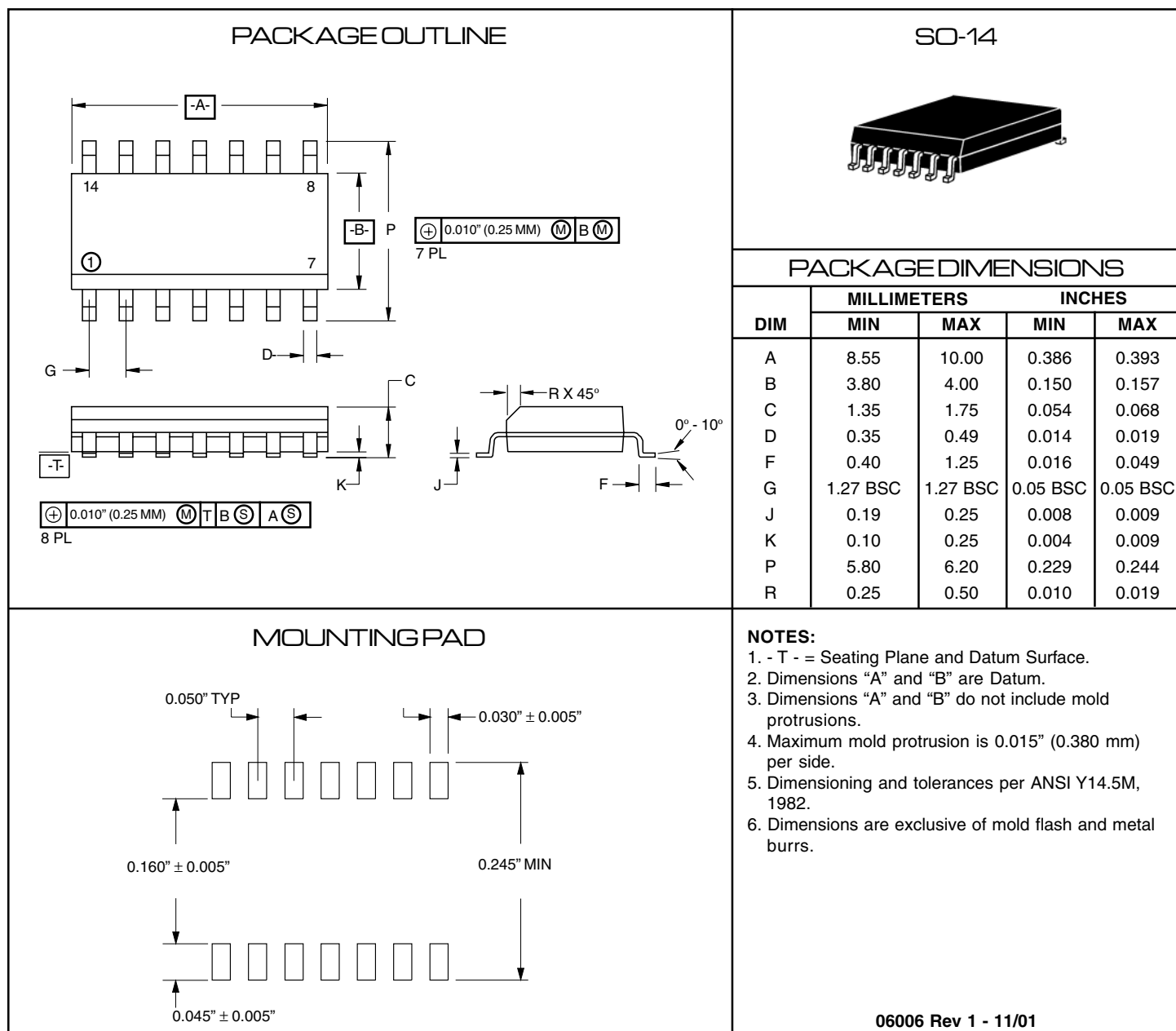
8 DIODE COMMON CATHODE ARRAY
NC PINS 1, 4, 6, 10 & 13

MMAD1109



7 ISOLATED DIODE ARRAY
(INDEPENDENT)

PACKAGE OUTLINE & DIMENSIONS



TAPE & REEL ORDERING INFORMATION:

Surface mount product is taped and reeled in accordance with EIA-481.
 Suffix -T7: 7 Inch Reel - 1,000 pieces per reel (i.e., MMAD1106-T7).
 Suffix -T13: 13 Inch Reel - 2,500 pieces per reel (i.e., MMAD1105-T13).
 No Suffix: Bulk Quantities - 55 pieces per tube.

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SPECIFICATIONS: ProTek reserves the right to change the electrical and or mechanical characteristics described herein without notice (except JEDEC).

DESIGN CHANGES: ProTek reserves the right to discontinue product lines without notice, and that the final judgement concerning selection and specifications is the buyer's and that in furnishing engineering and technical assistance, ProTek assumes no responsibility with respect to the selection or specifications of such products.

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