

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)

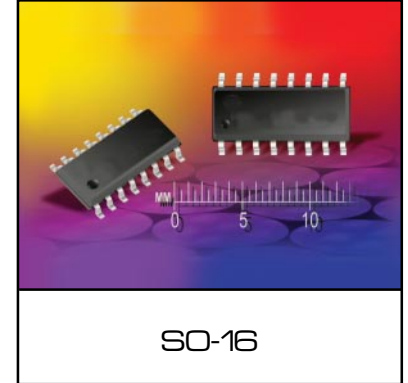
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 12A, 8/20µs Level 1 (Line-Ground) & Level 2 (Line-Line)

FEATURES

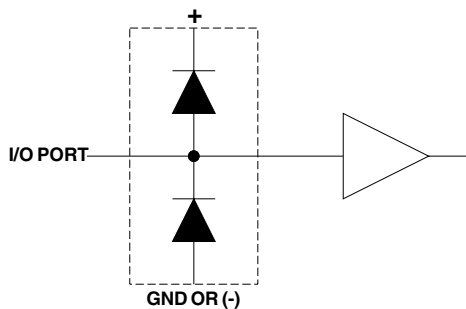
- ✓ 500 Milliwatt Continuous Power Dissipation
- ✓ ESD Protection > 40 kilovolts
- ✓ Monolithic Design
- ✓ Provides Protection for 8 I/O Lines
- ✓ Working Voltage > 50 Volts
- ✓ **LOW LEAKAGE CURRENT < 0.1µA**
- ✓ **ULTRA LOW CAPACITANCE: 5pF Per Diode**
- ✓ RoHS Compliant in Lead-Free Versions

MECHANICAL CHARACTERISTICS

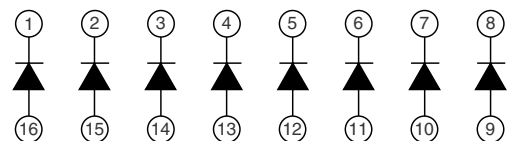
- ✓ Molded JEDEC SO-16 Package
- ✓ Weight 0.15 grams (Approximate)
- ✓ Available in Tin-Lead or Lead-Free Pure-Tin Plating(Annealed)
- ✓ Solder Reflow Temperature:
 - Tin-Lead - Sn/Pb, 85/15: 240-245°C
 - Pure-Tin - Sn, 100: 260-270°C
- ✓ Flammability rating UL 94V-0
- ✓ 16mm Tape & Reel Per EIA Standard 481
- ✓ Marking: Logo, Part Number, Date Code & Pin One Defined By Dot on Top of Package



CIRCUIT DIAGRAM



PIN CONFIGURATION

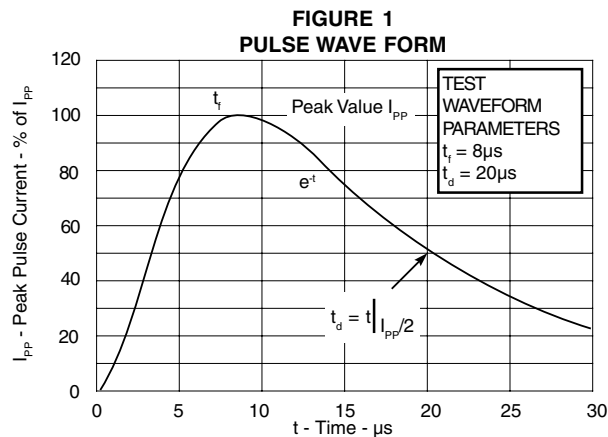


**8 ISOLATED DIODE ARRAY
8 LINES OF PROTECTION**

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_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 μA V_{RRM} VOLTS	MAXIMUM FORWARD PEAK PULSE CURRENT @ 8/20 μs I_{FM} AMPS	MAXIMUM FORWARD VOLTAGE @ 100mA V_F VOLTS	MAXIMUM REVERSE LEAKAGE CURRENT V_{RRM} @ 40V I_R μA	MAXIMUM CAPACITANCE (Per Diode) @ 4V, 1 MHz C_i pF
MMAD1108	50	12	1.2	0.1	5



PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE

SO-16

PACKAGED DIMENSIONS

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	9.80	10.00	0.386	0.393
B	3.80	4.00	0.150	0.157
C	1.35	1.75	0.054	0.068
D	0.35	0.49	0.014	0.019
F	0.40	1.25	0.016	0.049
G	1.27 BSC	1.27 BSC	0.05 BSC	0.05 BSC
J	0.19	0.25	0.008	0.009
K	0.10	0.25	0.004	0.009
P	5.80	6.20	0.229	0.244
R	0.25	0.50	0.010	0.019

MOUNTING PAD

NOTES

- T - = Seating Plane and Datum Surface.
- Dimensions "A" and "B" are Datum.
- Dimensions "A" and "B" do not include mold protrusions.
- Maximum mold protrusion is 0.015" (0.380 mm) per side.
- Dimensioning and tolerances per ANSI Y14.5M, 1982.
- Dimensions are exclusive of mold flash and metal burrs.

TAPE & REEL/BULK ORDERING NOMENCLATURE

- Surface mount product is taped and reeled in accordance with EIA-481.
- Suffix-T7 = 7 Inch Reel - 1,000 pieces per 16mm tape, i.e., MMAD1108-T7.
- Suffix-T13 = 13 Inch Reel - 2,500 pieces per 16mm tape, i.e., MMAD1108-T13.
- Suffix - LF = Lead-Free, Pure-Tin Plating, i.e., MMAD1108-LF-T7.
- No Suffix = Product Shipped in Tubes of 37 pcs per Tube.

Outline & Dimensions: Rev 1 - 11/01, 06007

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