

BIDIRECTIONAL MONOLITHIC TVS DIODE ARRAY

APPLICATIONS

- ✓ RS-232, RS-423 Data Lines
- ✓ Cellular Phones
- ✓ Audio/Video Inputs
- ✓ Portable Electronics
- ✓ Wireless Network Systems

IEC COMPATIBILITY (EN61000-4)

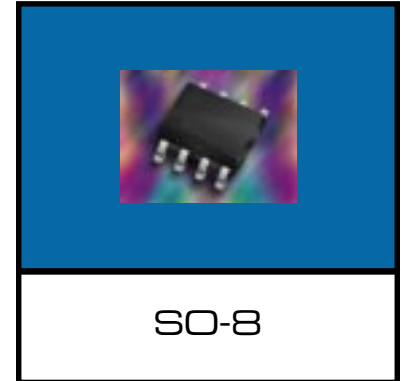
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 24A, 8/20 μ s Level 2(Line-Gnd) & Level 3(Line-Line)

FEATURES

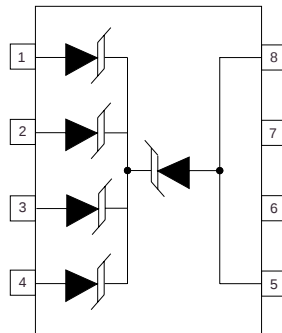
- ✓ 500 Watts Peak Pulse Power Per Line ($t_p = 8/20\mu$ s)
- ✓ Bidirectional Monolithic Design
- ✓ Available in 4 Voltage Types Ranging from 5V to 24V
- ✓ Protects Up to Four (4) Lines
- ✓ ESD Protection > 40 kilovolts

MECHANICAL CHARACTERISTICS

- ✓ Molded JEDEC SO-8
- ✓ Weight 15 milligrams (Approximate)
- ✓ Flammability Rating UL 94V-0
- ✓ 12mm Tape and Reel Per EIA Standard 481
- ✓ Device Marking: Marking Code & Logo
- ✓ Pin 1 Indicated By Dot on Top of Package



CIRCUIT DIAGRAM



PSMDA05C-4 thru PSMDA24C-4

DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified			
PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power ($t_p = 8/20\mu s$) - See Figure 1	P_{PP}	500	Watts
Operating Temperature	T_J	-55°C to 150°C	°C
Storage Temperature	T_{STG}	-55°C to 150°C	°C

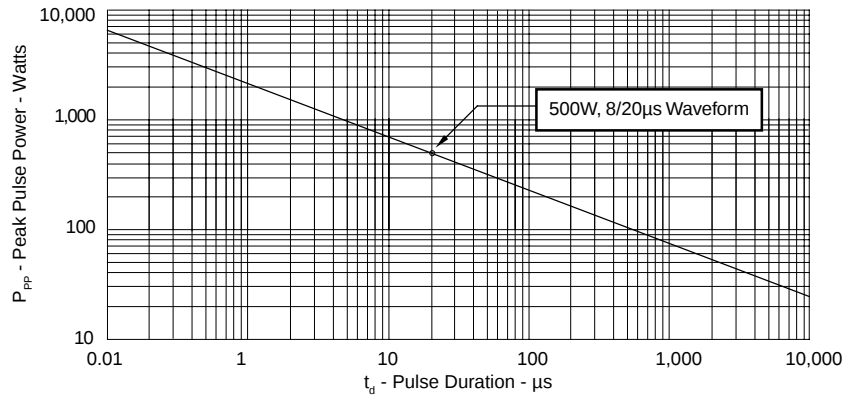
ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified							
PART NUMBER (See Note 1)	DEVICE MARKING	RATED STAND-OFF VOLTAGE	MINIMUM BREAKDOWN VOLTAGE	MAXIMUM CLAMPING VOLTAGE (See Fig. 2)	MAXIMUM CLAMPING VOLTAGE (See Fig. 2)	MAXIMUM LEAKAGE CURRENT	MAXIMUM CAPACITANCE
		V_{WM}	@ 1mA $V_{(BR)}$	@ $I_p = 1A$ V_C	@ 8/20 μs	@ V_{WM} I_D	0V @ 1 MHz C
PSMDA05C-4	TEB	5.0	6.0	9.8	19V @ 30A	100	350
PSMDA12C-4	TED	12.0	13.3	19.0	29V @ 20A	1	150
PSMDA15C-4	TEF	15.0	16.7	24.0	32V @ 18A	1	120
PSMDA24C-4	TEH	24.0	26.7	43.0	45V @ 13A	1	100

Note 1: Test individual pins 8 or 5 to pins 1, 2, 3, or 4. Pins 6 and 7 are open.

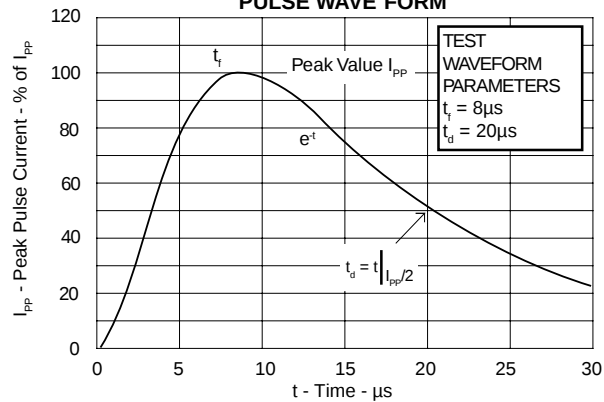
PSMDA05C-4 thru PSMDA24C-4

GRAPHS

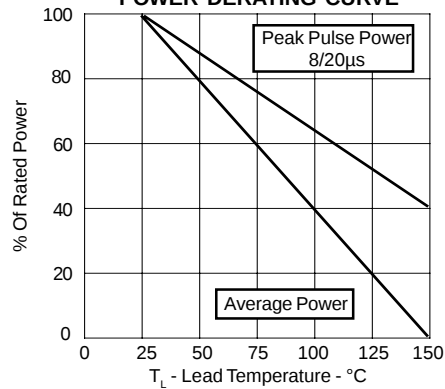
**FIGURE 1
PEAK PULSE POWER VS PULSE TIME**



**FIGURE 2
PULSE WAVE FORM**

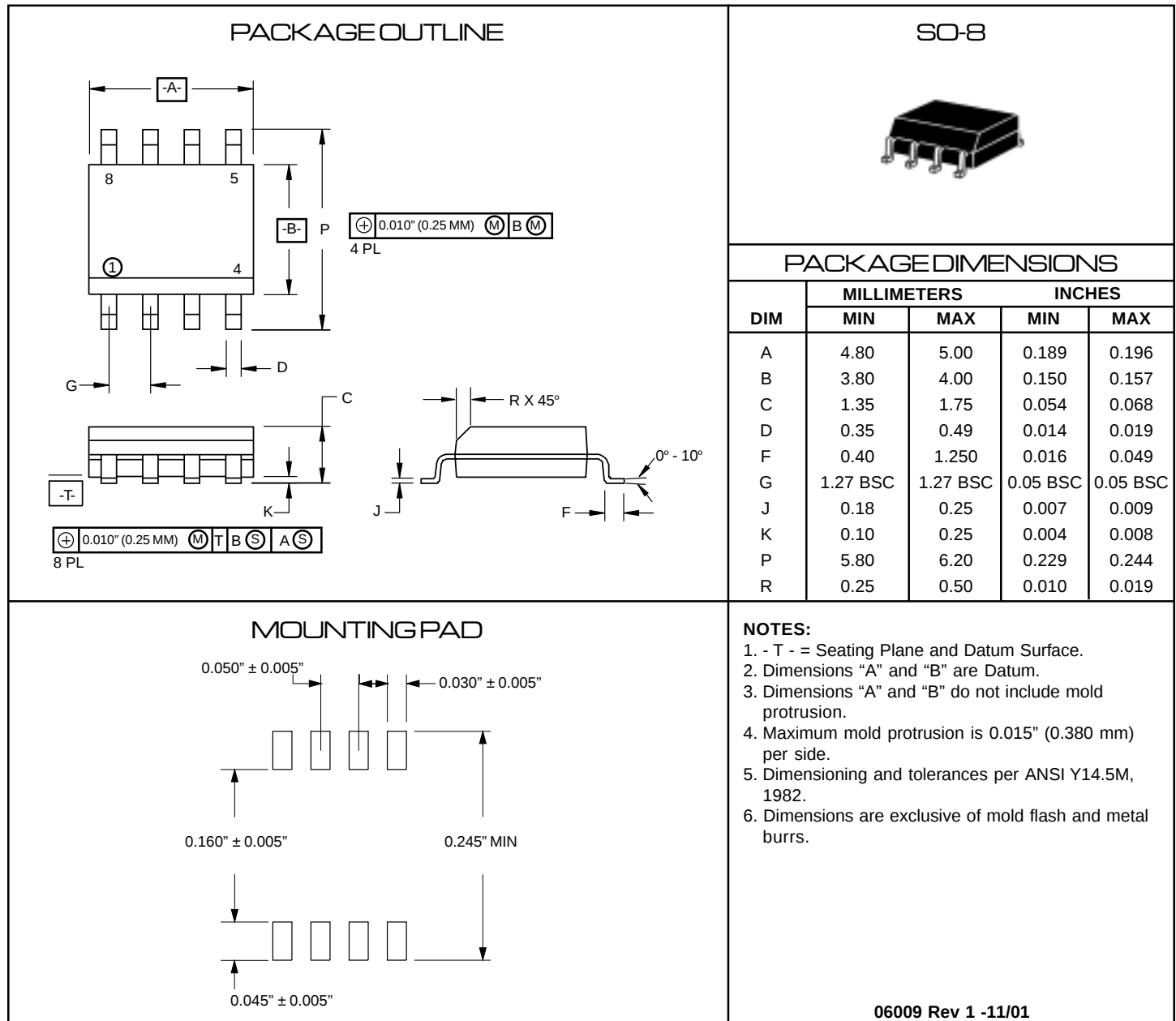


**FIGURE 3
POWER DERATING CURVE**



PSMDA05C-4 thru PSMDA24C-4

PACKAGE OUTLINE & DIMENSIONS



TAPE & REEL PACKAGING:

Surface mount product is taped and reeled in accordance with EIA-481, reel quantities and sizes are as follows:

7 Inch Reel - 1,000 pieces per reel; 13 Inch Reel - 2,500 pieces per reel

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