



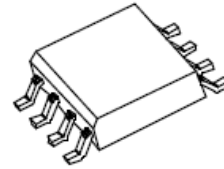
**Technical Data
Data Sheet N0295, Rev. -**

TVS ARRAY SERIES

FEATURES

- ✓ Protects 3.3, 5, 12, 15, 24 V Components
- ✓ Unidirectional
- ✓ Provides Electrically Isolated Protection
- ✓ 300 W @ 8/20 μs
- ✓ Protects 6 Lines
- ✓ SO-8 Packaging
- ✓ This is a Pb - Free Device
- ✓ All SMC parts are traceable to the wafer lot
- ✓ Additional testing can be offered upon request

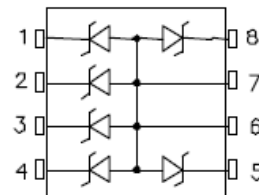
SO-8



DESCRIPTION

The SMDAXXC-6 series of TVS array have been designed to provide unidirectional protection for sensitive electronics from damage due to voltage transients caused by electrostatic discharge (ESD), electrical fast transients (EFT), lightning and other voltage-induced transient events. The device can be used to protect combinations of six unidirectional lines.

SCHEMATIC & PIN CONFIGURATION



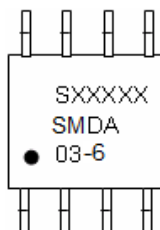
APPLICATION

- ✓ RS-232 & RS-422 Data Lines
- ✓ Microprocessor Based Equipment
- ✓ Notebooks, Desktops, & Servers
- ✓ LAN/WAN Equipment
- ✓ Serial and Parallel Port
- ✓ Peripherals

MECHANICAL CHARACTERISTICS

- ✓ SO-8 Surface Mount Package
- ✓ Approximate Weight: 0.1 grams
- ✓ PIN #1 Indicator: DOT on top of package
- ✓ Packaging: Tubes or Tape & Reel per EIA Standard 481

MARKING DIAGRAM



Where XXXXX is YYWWL

- SMDA03-6 = Part Name
- S = S
- YY = Year
- WW = Week
- L = Lot Number

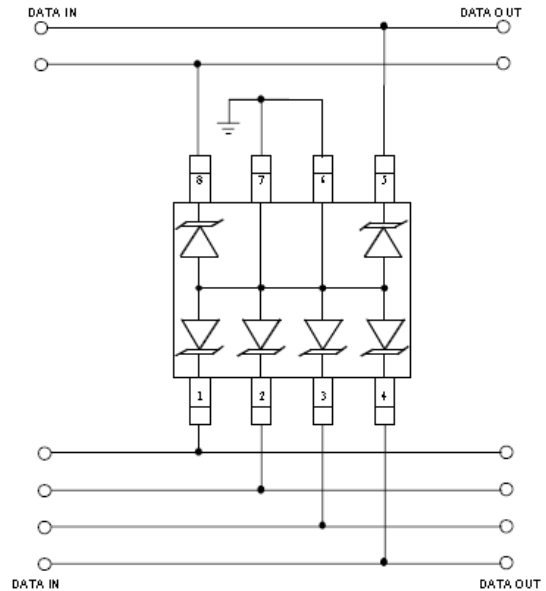
Cautions: Molding resin
Epoxy resin UL:94V-0

Circuit Diagram

The SMDAxx-6 is designed to protect up to 6 data or I/O lines operating at 5 volts. They are unidirectional devices and may be used on lines where the signal polarities are above ground (i.e. 0 to 5V).

The devices are connected as follows:

- ✓ Pins 1, 2, 3, 4, 5 and 8 are connected to the lines that are to be protected. Pins 6 and 7 are connected to ground. The ground connections should be made directly to the ground plane for best results. The path length is kept as short as possible to reduce the effects of parasitic inductance in the board traces.



Ordering Information:

Device	Package	Shipping
SMDA03-6 THRU SMDA24-6	SO-8 (Pb-Free)	2500pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

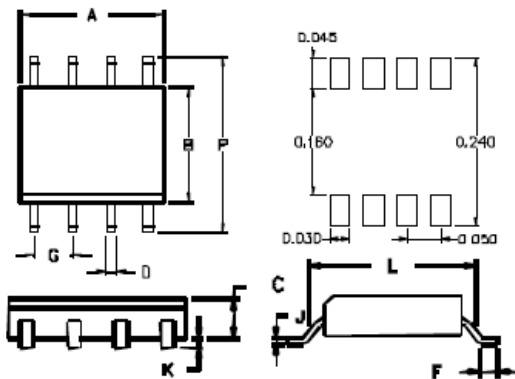
ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
P	Peak Pulse Power, 8/20 μ s Waveshape	300	W
T _J	Operating Temperature	-55 to +125	$^{\circ}$ C
T _{STG}	Storage Temperature	-55 to +150	$^{\circ}$ C
T _L	Lead Soldering Temperature	260 (10 Sec.)	$^{\circ}$ C



ELECTRICAL CHARACTERISTICS @ 25 °C						
Part Number	Stand-off Voltage V_{wm} (v) Max	Breakdown Voltage V_{BR} @1mA (V) Min	Clamping Voltage V_c @ 1 A (V) Max	Leakage Current I_R @ V_{wm} (μ A) Max	Capacitance (f = 1MHz) C @ 0V (pF) Max	Temperature Coefficient of V_{BR} a(V_{BR}) mv/°C Max
SMDA03-6	3.3	4	7	200	800	-3
SMDA05-6	5.0	6	9.8	20	550	3
SMDA12-6	12.0	13.3	19	1	185	10
SMDA15-6	15.0	16.7	24	1	140	13
SMDA24-6	24.0	26.7	43	1	88	30

PACKAGE OUTLINES & DIMENSIONS



DIM	INCHES		MILLIMETERS	
	MIN.	MAX	MIN.	MAX.
A	0.189	0.196	4.8	5.0
B	0.150	0.157	3.8	4.0
C	0.053	0.069	1.35	1.75
D	0.011	0.021	0.28	0.53
F	0.016	0.050	0.41	1.27
G	0.050 BSC		1.27 BSC	
J	0.006	0.010	0.15	0.25
K	0.004	0.008	0.10	0.20
L	0.189	0.206	4.80	5.23
P	0.228	0.244	5.79	6.19

TYPICAL CHARACTERISTICS

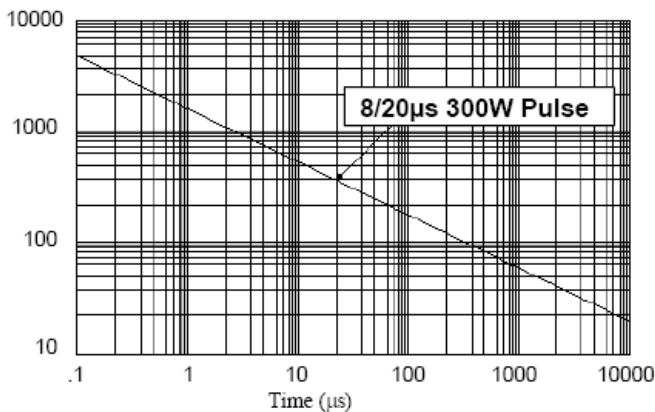


Figure 1. Peak Pulse Power Vs Pulse Time (μ s)

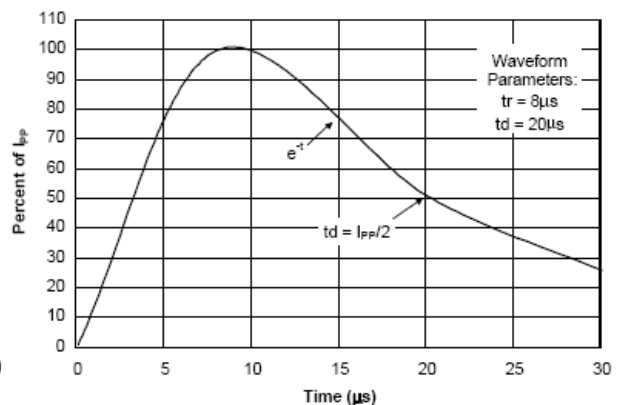


Figure 2. Pulse Wave Form



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