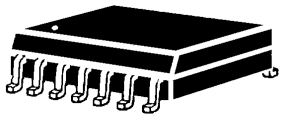
8700 E. Thomas Road
Scottsdale, AZ 85251
Tel: (480) 941-6300
Fax: (480) 947-1503

SMDA03C-8
thru
SMDA24C-8

TVSarray™ Series



DESCRIPTION (300 watt)

This 14 pin 8 line Bi-directional array is designed for use in applications where protection is required at the board level from voltage transients caused by electrostatic discharge (ESD) as defined in IEC 1000-4-2, electrical fast transients (EFT) per IEC 1000-4-4 and effects of secondary lighting.

These TRANSIENT VOLTAGE SUPPRESSOR (TVS) Diode Arrays have a peak power of 300 watts for an 8/20 µsec pulse and are designed to protect 3.0/3.3 volt components such as DRAM's, SRAM's, CMOS, HCMOS, HSIC, and low voltage interfaces up to 24 volts.

FEATURES

- Protects 3.0/3.3 up through 24V Components
- Protects 8 lines Bi-directional
- Provides electrically isolated protection
- SO-14 Packaging

MECHANICAL

- Molded SO-14 Surface Mount
- Weight: 0.127 grams (approximate)
- Body Marked with Logo, and device number
- Pin #1 defined by DOT on top of package
- Encapsulation meets UL 94V-0

MAXIMUM RATINGS

- Operating Temperatures: -55^{0}C to +150^{0}C
- Storage Temperature: -55^{0}C to +150^{0}C
- Peak Pulse Power: 300 Watts (8/20 µsec, Figure 1)
- Pulse Repetition Rate: <.01%

PACKAGING

- Tape & Reel EIA Standard 481-1-A
- 13 inch reel 2,500 (OPTIONAL)
- Carrier tubes 55 pcs per (STANDARD)

ELECTRICAL CHARACTERISTICS@ 25^{0}C Unless otherwise specified

PART NUMBER	DEVICE MARKING	STAND OFF VOLTAGE V_{WM} VOLTS	BREAKDOWN VOLTAGE V_{BR} @1 mA VOLTS	CLAMPING VOLTAGE V_C @ 1 Amp (FIGURE 2) VOLTS	CLAMPING VOLTAGE V_C @ 5 Amp (FIGURE 2) VOLTS	LEAKAGE CURRENT I_D @ V_{WM} µA	CAPACITANCE (f=1 MHz) @0V C pF	TEMPERATURE COEFFICIENT OF V_{BR} á$_{VBR}$ mV/°C
		MAX	MIN	MAX	MAX	MAX	TYP	MAX
SMDA03C-8	SDL8	3.3	4	7.0	9.0	200	300	-5
SMDA05C-8	SDB8	5.0	6.0	9.8	11	40	200	1
SMDA12C-8	SDD8	12.0	13.3	19.0	24	1	75	8
SMDA15C-8	SDF8	15.0	16.7	24.0	30	1	50	11
SMDA24C-8	SDH8	24.0	26.7	43.0	55	1	35	28

NOTE: Transient Voltage Suppression (TVS) product is normally selected based on its stand off voltage V_{WM}. Product selected voltage should be equal to or greater than the continuous peak operating voltage of the circuit to be protected.

Application: The SMDAXXC-8 product is designed for transient voltage suppression protection of components at the board level. It is an ideal product to be used for protection of I/O Transceivers.

WAVE FORMS

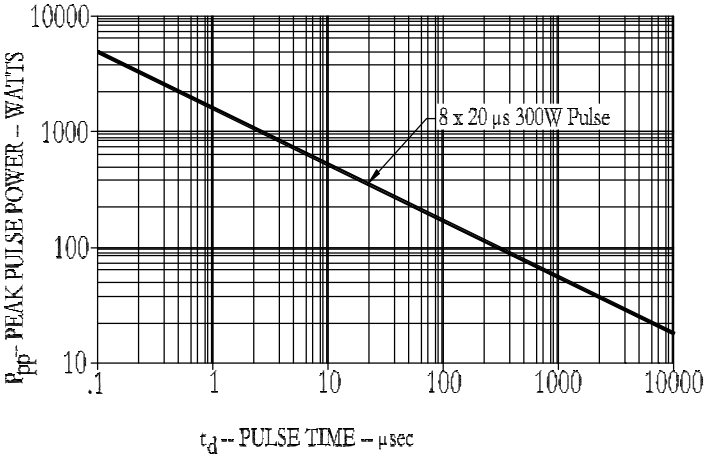


FIGURE 1
Peak Pulse Power Vs Pulse Time

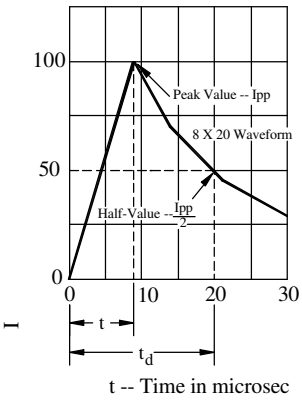
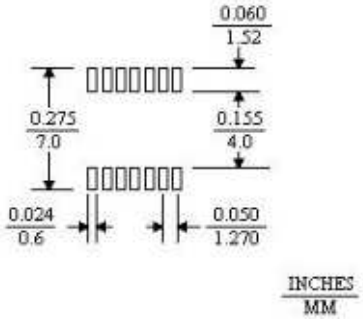
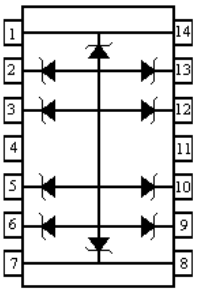


FIGURE 2
Pulse Wave Form

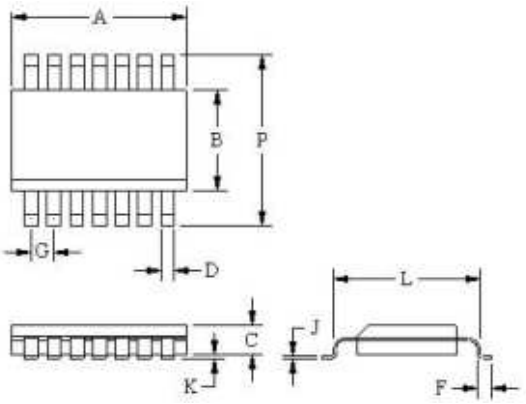
MOUNTING PAD SO-14



CIRCUIT DIAGRAM



SO-14 PACKAGE



	INCHES		MILLIMETERS	
DIM	MIN	MAX	MIN	MAX
A	0.337	0.344	8.55	8.75
B	0.150	0.158	3.81	4.01
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	0.010	0.10	0.25
L	0.189	0.206	4.80	5.23
P	0.228	0.244	5.79	6.19