

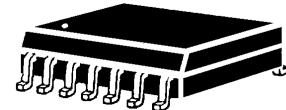


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SMDA03C-8
 thru
SMDA24C-8
 TVSarray[®] Series

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 μ sec 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^oC to +150^oC
- Storage Temperature: -55^oC to +150^oC
- Peak Pulse Power: 300 Watts (8/20 μ sec, 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^oC Unless otherwise specified

| PART NUMBER | DEVICE MARKING | STAND OFF VOLTAGE V_{WM} | BREAKDOWN VOLTAGE V_{BR} @1 mA | CLAMPING VOLTAGE V_C @ 1 Amp (FIGURE 2) | CLAMPING VOLTAGE V_C @ 5 Amp (FIGURE 2) | LEAKAGE CURRENT I_b @ V_{WM} | CAPACITANCE (f=1 MHz) @0V C | TEMPERATURE COEFFICIENT OF V_{BR} α_{VBR} mV/ ^o C |
|-------------|----------------|----------------------------|----------------------------------|---|---|----------------------------------|-----------------------------|---|
| | | VOLTS | VOLTS | VOLTS | VOLTS | μ A | pF | |
| | | 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

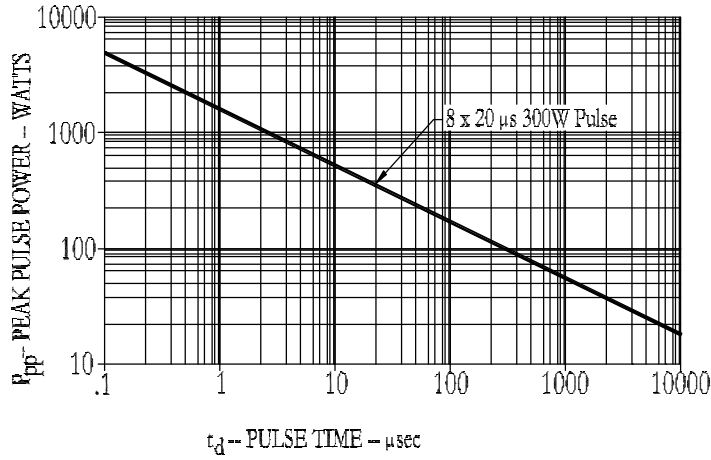


FIGURE 1
Peak Pulse Power Vs Pulse Time

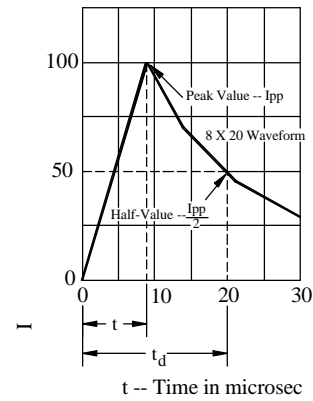


FIGURE 2
Pulse Wave Form

