

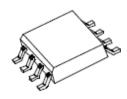
Technical Data Data Sheet N0297, Rev. - **Green Products**

TVS ARRAY SERIES

FEATURES

- Protects 3.3, 5, 12, 15, 24 V Components
- ✓ Bidirectional
- ✓ Provides Electrically Isolated Protection
- √ 300 W @ 8/20 µs
- ✓ Protects 4 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

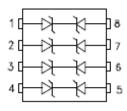
SO-8



DESCRIPTION

The SMDAXXC series of TVS array have been designed to provide bidirectional 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 four bidirectional lines.

SCHEMATIC & PIN CONFIGURATION



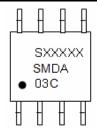
APPLICATION

- √ 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



Cautions: Molding resin

Epoxy resin UL:94V-0

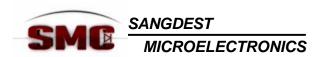
Where XXXXX is YYWWL

SMDA03C = Part Name

S = S YY = Year WW = Week L = Lot Number

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Ordering Information:

| Device | Package | Shipping |
|----------------------|----------------|----------------|
| SMDA03C THRU SMDA24C | 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 | | | |
| Р | Peak Pulse Power, 8/20 μs Waveshape | 300 | W | | | |
| T_J | Operating Temperature | -55 to +125 | °C | | | |
| T _{STG} | Storage Temperature | -55 to +150 | °C | | | |
| T_L | Lead Soldering Temperature | 260 (10 Sec.) | °C | | | |

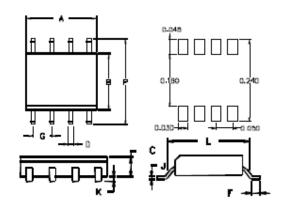
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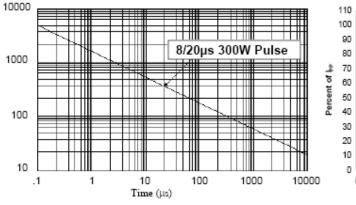
| ELECTRICAL CHARACTERISTICS @ 25 °C | | | | | | |
|------------------------------------|-----------|-----------|----------------|-------------------|-------------|---------------------|
| Part Number | Stand-off | Breakdown | Clamping | Leakage | Capacitance | Temperature |
| | Voltage | Voltage | Voltage | Current | (f = 1MHz) | Coefficient |
| | | V_{BR} | V _c | I _R | С | of V _{BR} |
| | V_{wm} | @1mA | @ 1 A | @ V _{wm} | @ 0V | a(V _{BR}) |
| | (v) | (V) | (V) | (μA) | (pF) | mv/°C |
| | Max | Min | Max | Max | Max | Max |
| SMDA03C | 3.3 | 4 | 7 | 200 | 400 | -5 |
| SMDA05C | 5.0 | 6 | 9.8 | 40 | 300 | 1 |
| SMDA12C | 12.0 | 13.3 | 19 | 1 | 94 | 8 |
| SMDA15C | 15.0 | 16.7 | 24 | 1 | 70 | 11 |
| SMDA24C | 24.0 | 26.7 | 43 | 1 | 45 | 28 |

PACKAGE OUTLINES & DEMENSIONS



| | INC | HES | MILLIMETERS | | |
|-----|-----------|-------|-------------|------|--|
| DIM | MIN. | MAX | MIN. | MAX. | |
| A | 0.189 | 0.196 | 4.8 | 5.0 | |
| В | 0.150 | 0.157 | 3.8 | 4.0 | |
| С | 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



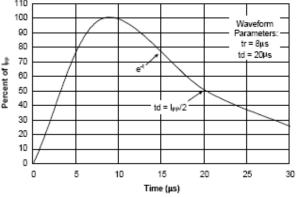


Figure 1. Peak Pulse Power Vs Pulse Time (μ s)

Figure 2. Pulse Wave Form

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SMDA03C THRU SMDA24C

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