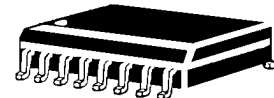




8700 E. Thomas Road  
 Scottsdale, AZ 85251  
 Tel: (480) 941-6300  
 Fax: (480) 947-1503

**SM16LC03C-6  
 thru  
 SM16LC24C-6**

**TVSarray™ Series**



**DESCRIPTION (300 watt)**

This 16 pin 6 line Low Capacitance Bidirectional 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  $\mu$ 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 6 lines Bi-directional
- Provides electrically isolated protection
- SO-16 Packaging

**MECHANICAL**

- Molded SO-16 Surface Mount
- Weight: 2.5 grams (approximate)
- Body Marked with Logo, and device number
- Pin #1 defined by DOT on top of package

**MAXIMUM RATINGS**

- Operating Temperatures: -55<sup>o</sup>C to +150<sup>o</sup>C
- Storage Temperature: -55<sup>o</sup>C to +150<sup>o</sup>C
- Peak Pulse Power: 300 Watts (8/20  $\mu$ sec, Figure 1)
- Pulse Repetition Rate: <.01%

**PACKAGING**

- Tape & Reel EIA Standard 481-1-A
- 13 inch reel 2,500 pieces (OPTIONAL)
- Carrier tubes 50 pieces per (STANDARD)

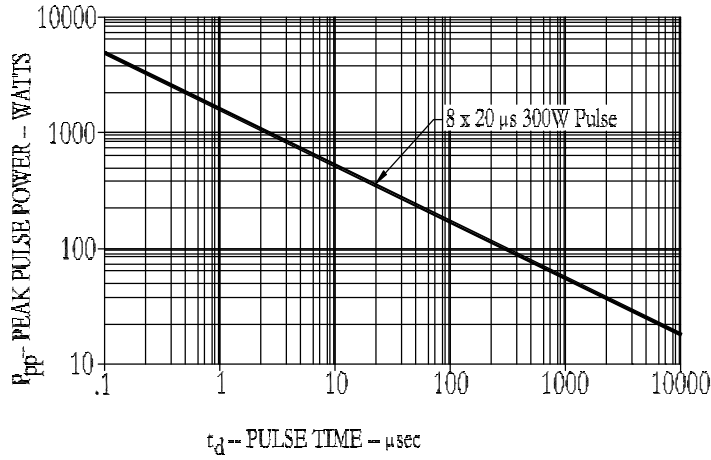
**ELECTRICAL CHARACTERISTICS@ 25<sup>o</sup>C Unless otherwise specified**

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 $V_{BR}$ $\Delta V_{BR}$
		VOLTS MAX	VOLTS MIN	VOLTS MAX	VOLTS MAX	$\mu$ A MAX	pF TYP	mV/ <sup>o</sup> C MAX
SM16LC03C-6	MAL	3.3	4	7	9	200	25	-3
SM16LC05C-6	MAM	5.0	6	9.8	11	100	25	1
SM16LC12C-6	MAN	12	13.3	19	24	1	25	8
SM16LC15C-6	MAO	15	16.7	24	30	1	25	11
SM16LC24C-6	MAP	24	26.7	43	55	1	25	28

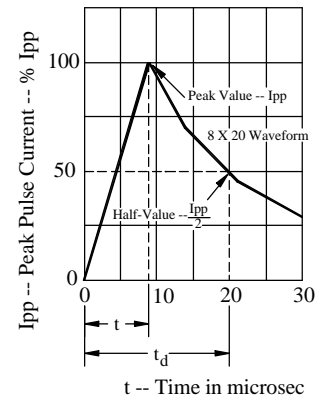
**NOTE:** Transient Voltage Suppression (TVS) product is normally selected based on its stand off voltage  $V_{WM}$ . Product selected voltage should be equal to or greater than the continuous peak operating voltage of the circuit to be protected.

**Application:** The SM16LCXXC-6 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

