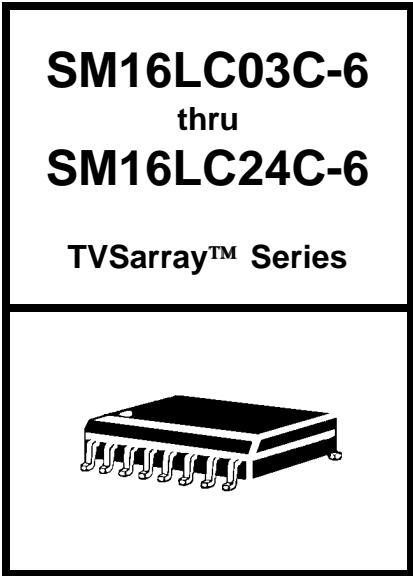




8700 E. Thomas Road
 Scottsdale, AZ 85251
 Tel: (480) 941-6300
 Fax: (480) 947-1503



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 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 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 $^{\circ}$ C to +150 $^{\circ}$ C
- Storage Temperature: -55 $^{\circ}$ C to +150 $^{\circ}$ C
- 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 pieces (OPTIONAL)
- Carrier tubes 50 pieces per (STANDARD)

ELECTRICAL CHARACTERISTICS@ 25 $^{\circ}$ 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} ΔV_{BR}
		VOLTS	VOLTS	VOLTS	VOLTS	μ A	pF	mV/ $^{\circ}$ C
		MAX	MIN	MAX	MAX	MAX	TYP	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

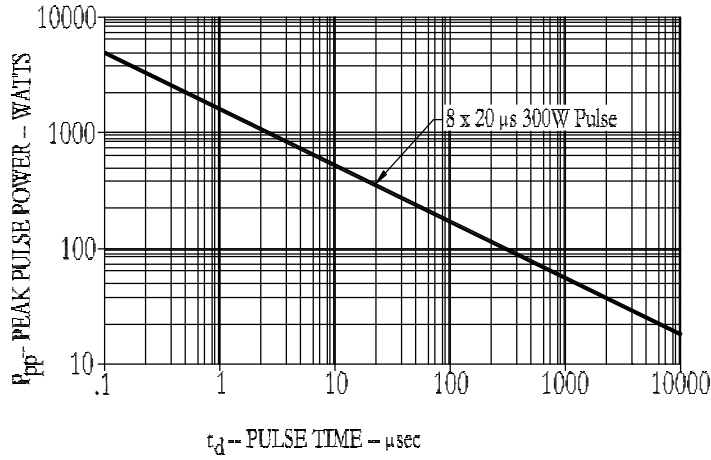


FIGURE 1
Peak Pulse Power Vs Pulse Time

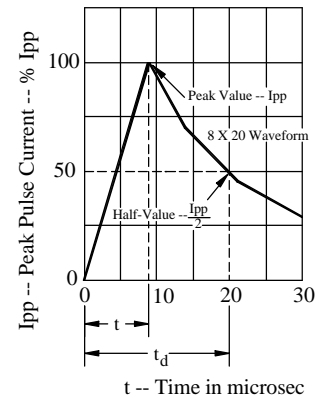


FIGURE 2
Pulse Wave Form

