



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

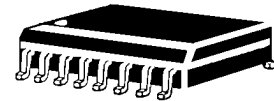
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





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

SM16LC03C
 thru
SM16LC24C
TVSarray™ Series



DESCRIPTION (300 watt)

This 16 pin 8 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 8 lines Bidirectional
- Provides electrically isolated protection
- SO-16 Packaging

MECHANICAL

- Molded SO-16 Surface Mount
- Weight: 0.128 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°C to +150°C
- Storage Temperature: -55°C to +150°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 48 pcs per (STANDARD)

ELECTRICAL CHARACTERISTICS PER LINE @ 25°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_D @ V_{WM}	CAPACITANCE (f=1 MHz) @ 0V C	TEMPERATURE COEFFICIENT OF V_{BR} ΔV_{BR}
		VOLTS	VOLTS	VOLTS	VOLTS	μ A	pF	mV/°C
		MAX	MIN	MAX	MAX	MAX	TYP	MAX
SM16LC03C	MAA	3.3	4	7.0	9.0	200	25	-5
SM16LC05C	MAB	5.0	6	9.8	11	20	25	1
SM16LC08C	MAF	8.0	8.5	13.4	16.6	1	25	5
SM16LC12C	MAC	12	13.3	19	24	1	25	8
SM16LC15C	MAD	15	16.7	24	30	1	25	11
SM16LC24C	MAE	24	26.7	43	55	1	25	28

Part numbers with a "C" suffix are bidirectional devices

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 SM16CXXC 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

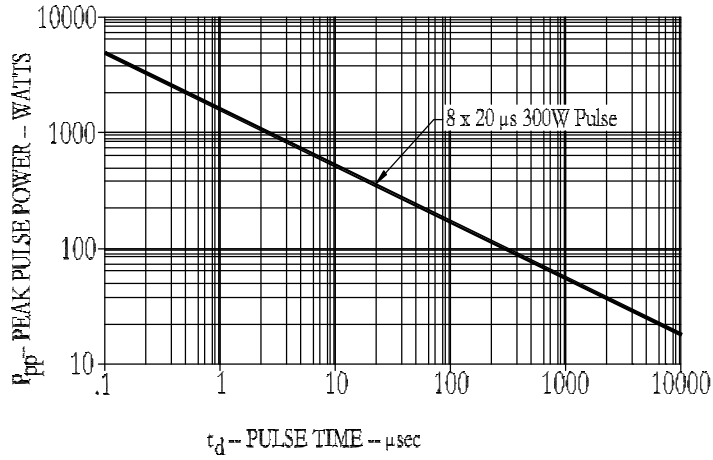


FIGURE 1
Peak Pulse Power Vs Pulse Time

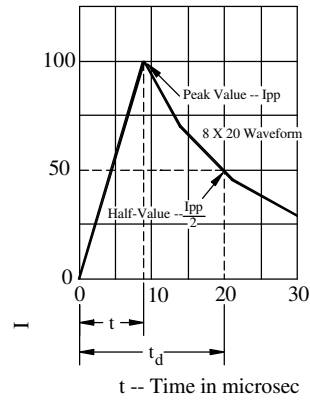
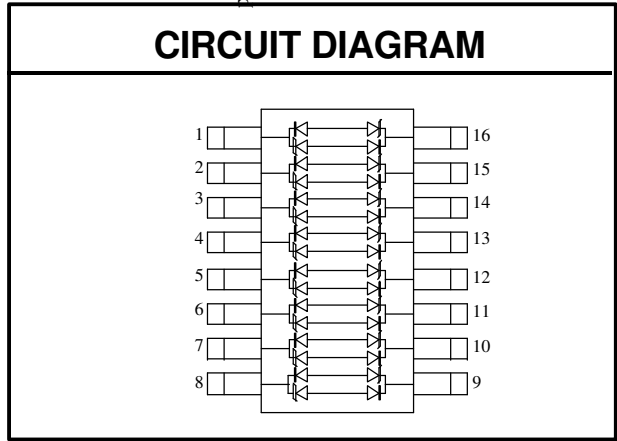
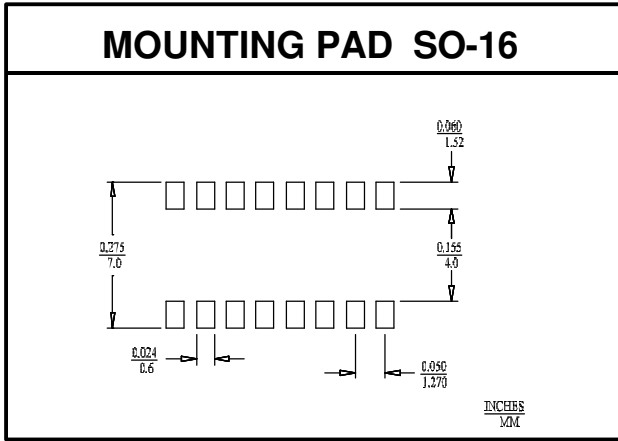


FIGURE 2
Pulse Wave Form



SO-16 PACKAGE

