



**THE DATASHEET OF
SMDA12C-8/TR13**



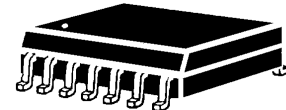


8700 E. Thomas Road
 Scottsdale, AZ 85251
 Tel: (480) 941-6300
 Fax: (480) 947-1503

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

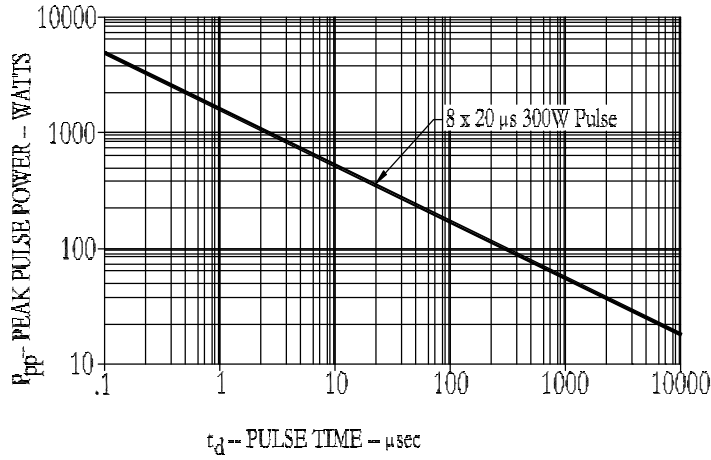


FIGURE 1
Peak Pulse Power Vs Pulse Time

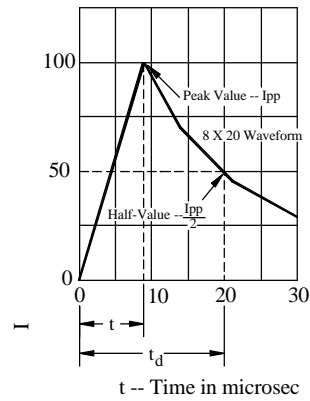
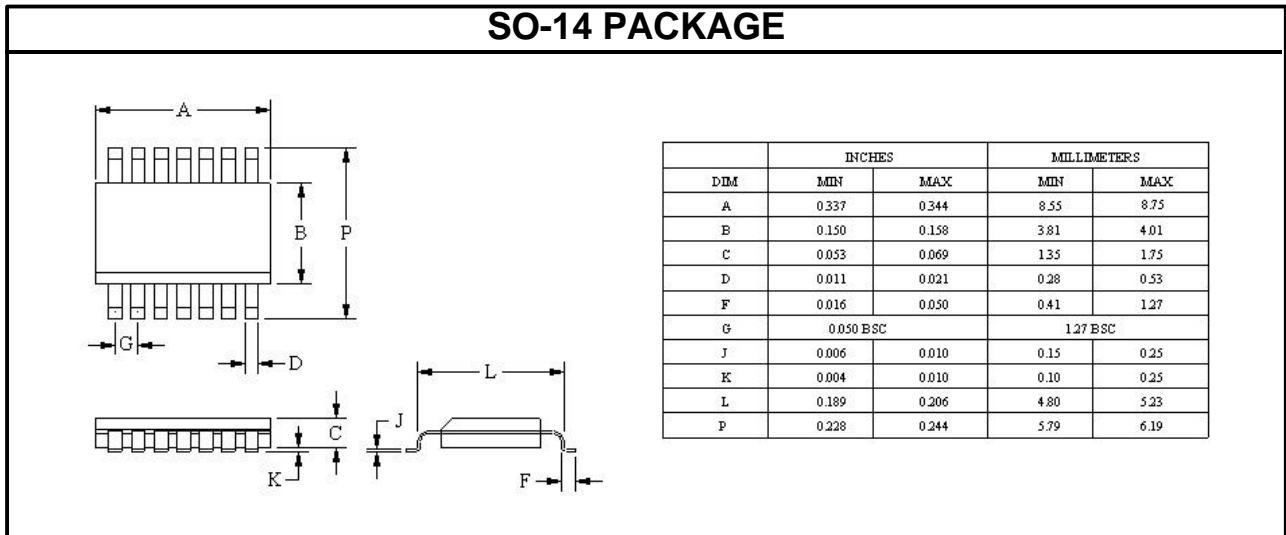
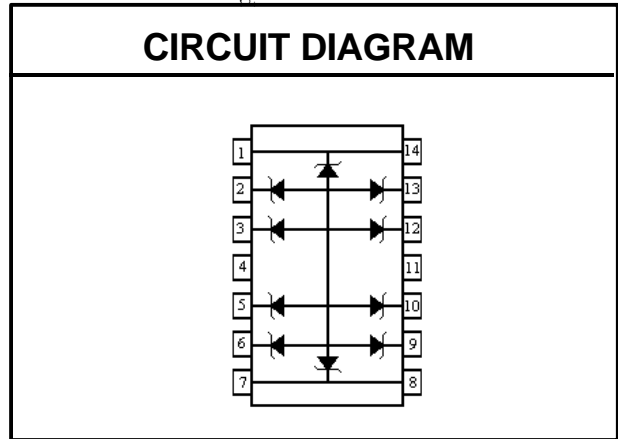
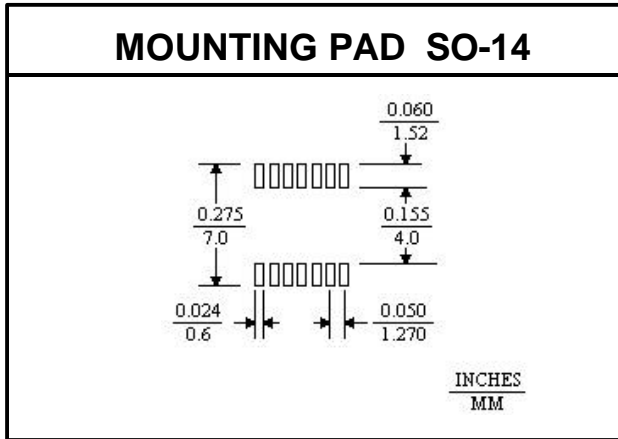




FIGURE 2
Pulse Wave Form



Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View SMDA12C-8/TR13 on WIN SOURCE](#)
-  [Microchip Technology](#) Information

Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management