



**General
Semiconductor
Industries, Inc.**



**SURFACE MOUNT
DIODE ARRAY**
TRANSZORB TVS
8 PIN
UNIDIRECTIONAL &
BIDIRECTIONAL
5.0 THRU 24 VOLTS

FEATURES

- 300 watts peak pulse power
- Data and Bus Line Applications
- Unidirectional & Bidirectional
- Standard SO-8 package

MAXIMUM RATINGS

- Peak Pulse Power (8/20 μ s): 300 watts
- Operating and Storage Temperature Range: -55°C to +150°C
- Repetition Rate (duty cycle): 01%

MECHANICAL CHARACTERISTICS

- Molded SO-8 Surface Mount
- Terminals: Solder dipped
- Body marked with device code and logo
- Pin No. 1 marked with dot on top of package
- Unidirectional cathode on bevelled side of device

DESCRIPTION

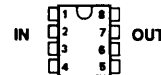
This family of TransZorb® TVS diode arrays are designed for surface mount applications such as smart cards, cameras and other electronic circuitry which require multiple protection with limited board space. These are available as unidirectional or bidirectional devices employing TransZorb TVS technology. They can provide board level protection for TTL and MOS logic circuits against every form of ESD threat.

These devices are best used at the board interface on all I/O ports and power input bus lines. For best results, separate units are required for data lines and power bus lines. If subjected to a transient current beyond their peak pulse capability, the units will either short or open circuit. The low profile package is designed to minimize lead inductance without sacrificing maximum transient current handling capability.

CASE



(TOP VIEW)



SO-8

ABBREVIATIONS & SYMBOLS

V_D Stand Off Voltage: Applied Reverse Voltage to assure a nonconductive condition. (See Note.)

V_C Maximum Clamping Voltage: The maximum peak voltage appearing across the TransZorb TVS when subjected to the peak pulse current waveform of 8 by 20 μ s. The peak pulse voltages are the combination of voltage rise due to both the series resistance and thermal rise.

I_{pp} Peak Pulse Current
 P_p Peak Pulse Power
 I_b Reverse Leakage

NOTE: A TransZorb TVS is normally selected according to the Reverse Stand Off Voltage (V_D) which should be equal to or greater than the dc or continuous peak operating voltage level.

FIGURE 1 -- Peak Pulse Power vs Pulse Time

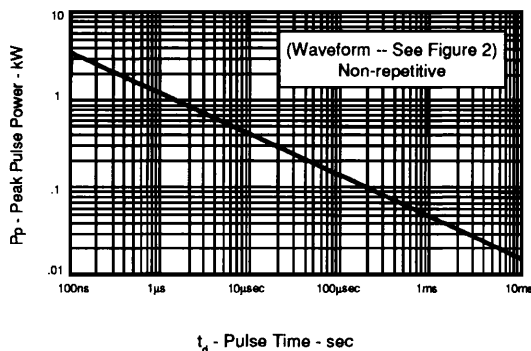
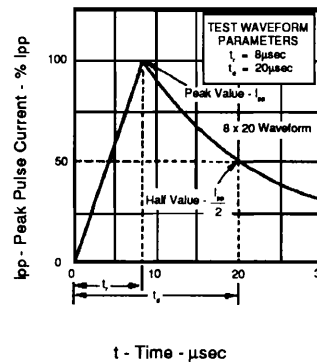


FIGURE 2 -- Pulse Waveform



ELECTRICAL CHARACTERISTICS @ 25°C							
GENERAL SEMICONDUCTOR PART NUMBER	DEVICE MARKING CODE	REVERSE STAND-OFF VOLTAGE	MINIMUM BREAKDOWN VOLTAGE @ 1mA	MAXIMUM CLAMPING VOLTAGE @ 1A (8/20µs)	MAXIMUM CLAMPING VOLTAGE @ 5A (8/20µs)	LEAKAGE CURRENT @ V _o	CAPACITANCE @ 0V, 1MHz
UNIDIRECTIONAL BIDIRECTIONAL		V _o Volts	BV _(min) Volts	V _c Volts	V _c Volts	I _o µA	C pF
SMDA05	SDA	5.0	6.0	9.8	11	100	550
SMDA05C	SDB	5.0	6.0	9.8	11	100	400
SMDA12	SDC	12	13.3	19	24	1	185
SMDA12C	SDD	12	13.3	19	24	1	150
SMDA15	SDE	15	16.7	24	30	1	140
SMDA15C	SDF	15	16.7	24	30	1	100
SMDA24	SDG	24	26.7	43	55	1	88
SMDA24C	SDH	24	26.7	43	55	1	63

SURFACE MOUNT DIODE ARRAY TRANSZORB TVS
8 PIN
 UNIDIRECTIONAL & BIDIRECTIONAL
 5.0 THRU 24 VOLTS

