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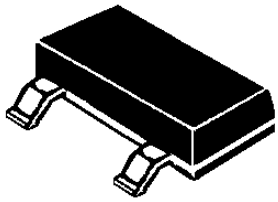
SL03
thru
SL24

TVSarray™ Series



DESCRIPTION (300 watt)

This 3 pin ***ULTRA LOW CAPACITANCE*** TRANSIENT VOLTAGE SUPPRESSOR is designed for use in applications where protection is required at the board level from voltage transients caused by electrostatic discharge (ESD) as defined by IEC 1000-4-2, electrical fast transients (EFT) per IEC 1000-4-4.

This product provides **unidirectional** protection for 1 line by connecting the Input/Output line to pin 1, pin 2 to common or ground and pin 3 (is not connected). The SL03 thru SL24 product provides board level protection from static electricity and other induced-voltage surges that can damage sensitive circuitry.

These TRANSIENT VOLTAGE SUPPRESSOR (TVS) Diode Arrays protect 3.0/3.3 Volt components such as DRAM's, SRAM's, CMOS, HCMOS, HSIC, and low voltage interfaces up to 24 Volts. Because of the physical size, weight and protection capabilities, this product is ideal for use in but not limited to miniaturized electronic equipment such as hand held instruments, computers, computer peripherals and cell phones.

FEATURES

- Protects 3.0/3.3 up through 24V Components
- Protects 1 Unidirectional line
- Provides electrically isolated protection
- SOT-23 Packaging

PACKAGING

- Tape & Reel EIA Standard 481
- 7 inch reel 5,000 pieces
- 13 inch reel 10,000 pieces

MAXIMUM RATINGS

- Operating Temperatures: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- SL03 thru SL24 have a Peak Pulse Power: 300 Watts (8/20 µsec, Figure 1)
- Pulse Repetition Rate: <.01%

MECHANICAL

- Molded SOT-23 Surface Mount
- Weight: .014 grams (approximate)
- Body Marked with device number

ELECTRICAL CHARACTERISTICS @ 25°C Unless otherwise specified

PART NUMBER	DEVICE MARKING	STAND OFF VOLTAGE V_{WM} VOLTS	BREAKDOWN VOLTAGE V_{BR} @1 mA VOLTS	CLAMPING VOLTAGE V_C @ 1 Amp (FIGURE 2) VOLTS	CLAMPING VOLTAGE V_C @ 5 Amp (FIGURE 2) VOLTS	LEAKAGE CURRENT I_D @ V_{WM} µA	CAPACITANCE @0V, 1 MHz C pF	TEMPERATURE COEFFICIENT OF V_{BR} á$_{VBR}$ mV/ºC
		MAX	MIN	MAX	MAX	MAX	MAX	MAX
SL03	L03	3.3	4	8	11	200	3	-5
SL05	L05	5.0	6.0	10.8	13	100	3	3
SL12	L12	12.0	13.3	19	26	1	3	10
SL15	L15	15.0	16.7	25	32	1	3	13
SL24	L24	24.0	26.7	44	57	1	3	30

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.

WAVE FORMS

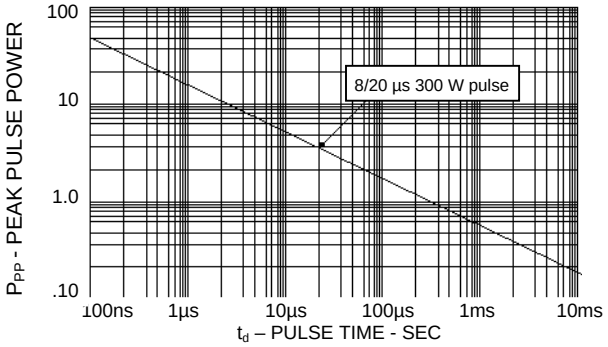


FIGURE 1
Peak Pulse Power Vs Pulse Time

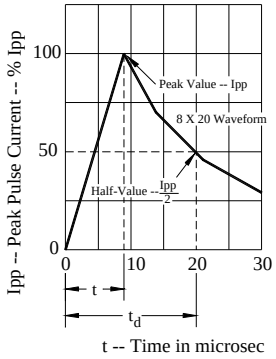
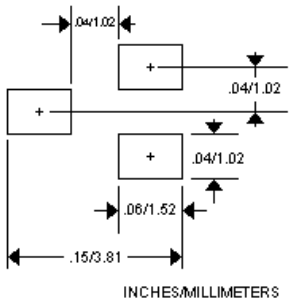
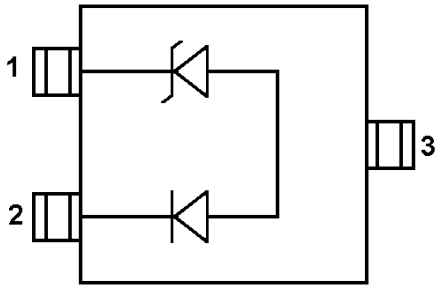


FIGURE 2
Pulse Wave Form

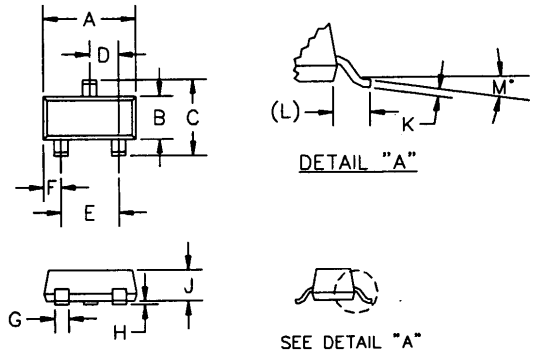
MOUNTING PAD SOT23



CIRCUIT DIAGRAM



PACKAGE OUTLINE



DIM"	DIMENSIONS [1] INCHES MIN	INCHES MAX	MM MIN	MM MAX	NOTE
A	.110	.119	2.8	3.04	–
B	.047	.055	1.20	1.40	–
C	.083	.104	2.10	2.64	–
D	.035	.040	0.88	1.02	–
E	.070	.081	1.78	2.05	–
F	.017	.024	.44	.60	–
G	.014	.020	.37	.51	–
H	.0005	.004	.013	0.10	–
J	.034	.040	.87	1.02	–
K	.003	.007	.085	.180	–
L	–	.022	–	0.55	REF
M	0	8°	0	8°	–

ISO 9001 CERTIFIED