



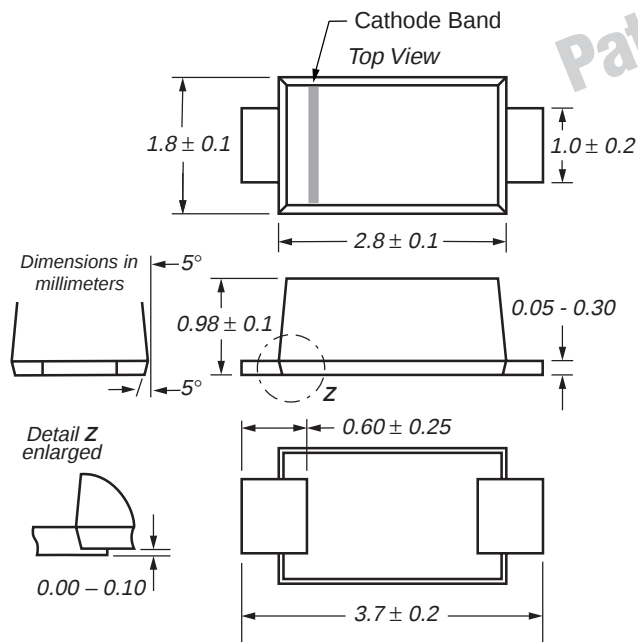
Surface Mount TRANSZORB® Transient Voltage Suppressors

Stand-off Voltage 5.0 to 51V

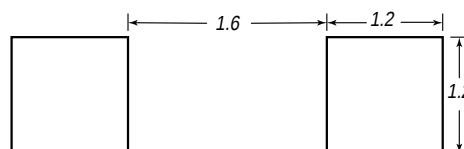
Peak Pulse Power 1000W (8/20μs pulse)

200W (10/1000μs pulse)

DO-219AB (SMF)



Mounting Pad Layout



Mechanical Data

Case: Low-profile plastic case

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

High temperature soldering guaranteed:
250°C/10 seconds at terminals

Polarity: The band denotes the cathode, which is positive with respect to the anode under normal TVS operation

Mounting Position: Any

Weight: approx. 0.01g

Packaging codes-options:

G1-10K per 13" reel (8mm tape), 50K/box

G2-3K per 7" reel (8mm tape), 30K/box

Features

- For surface mounted applications.
- Low-profile package
- Optimized for LAN protection applications
- Ideal for ESD protection of data lines in accordance with IEC 1000-4-2 (IEC801-2)
- Ideal for EFT protection of data lines in accordance with IEC 1000-4-4 (IEC801-4)
- Glass passivated junction
- Low incremental surge resistance, excellent clamping capability
- 200W peak pulse power capability with a 10/1000μs waveform, repetition rate (duty cycle): 0.01%
- Very fast response time

Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Peak pulse power dissipation with a 10/1000μs waveform ⁽¹⁾ 8/20μs waveform	PPPM	200 1000	W
Peak pulse current with a 10/1000μs waveform ⁽¹⁾	IPPM	See Next Table	A
Peak forward surge current 8.3ms single half sine-wave uni-directional only	IFSM	20	A
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150	°C

Note: (1) Non-repetitive current pulse and derated above T_A = 25°C

SMF5.0A thru SMF51A

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Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. $V_F = 3.5V$ at $I_F = 12A$ (uni-directional only)

Device Type	Device Marking Code	Breakdown Voltage V_{BR} at $I_T^{(1)}$ (V) Min	Test Current I_T (mA)	Stand-off Voltage V_{WM} (V)	Maximum Reverse Leakage at V_{WM} I_D (μA)	Maximum Peak Pulse Surge Current I_{PPM} (A) $^{(2)}$	Maximum Clamping Voltage at I_{PPM} V_C (V)
SMF5.0A	AE	6.40	10	5.0	400	21.7	9.2
SMF6.0A	AG	6.67	10	6.0	400	19.4	10.3
SMF6.5A	AK	7.22	10	6.5	250	17.9	11.2
SMF7.0A	AM	7.78	10	7.0	100	16.7	12.0
SMF7.5A	AP	8.33	1.0	7.5	50	15.5	12.9
SMF8.0A	AR	8.89	1.0	8.0	25	14.7	13.6
SMF8.5A	AT	9.44	1.0	8.5	10	13.9	14.4
SMF9.0A	AV	10.0	1.0	9.0	5.0	13.0	15.4
SMF10A	AX	11.1	1.0	10	2.5	11.8	17.0
SMF11A	AZ	12.2	1.0	11	2.5	11.0	18.2
SMF12A	BE	13.3	1.0	12	2.5	10.1	19.9
SMF13A	BG	14.4	1.0	13	1.0	9.3	21.5
SMF14A	BK	15.6	1.0	14	1.0	8.6	23.2
SMF15A	BM	16.7	1.0	15	1.0	8.2	24.4
SMF16A	BP	17.8	1.0	16	1.0	7.7	26.0
SMF17A	BR	18.9	1.0	17	1.0	7.2	27.6
SMF18A	BT	20.0	1.0	18	1.0	6.8	29.2
SMF20A	BV	22.2	1.0	20	1.0	6.2	32.4
SMF22A	BX	24.4	1.0	22	1.0	5.6	35.5
SMF24A	BZ	26.7	1.0	24	1.0	5.1	38.9
SMF26A	CE	28.9	1.0	26	1.0	4.8	42.1
SMF28A	CG	31.1	1.0	28	1.0	4.4	45.4
SMF30A	CK	33.3	1.0	30	1.0	4.1	48.4
SMF33A	CM	36.7	1.0	33	1.0	3.8	53.3
SMF36A	CP	40.0	1.0	36	1.0	3.4	58.1
SMF40A	CR	44.4	1.0	40	1.0	3.1	64.5
SMF43A	CT	47.8	1.0	43	1.0	2.9	69.4
SMF45A	CV	50.0	1.0	45	1.0	2.8	72.7
SMF48A	CX	53.3	1.0	48	1.0	2.6	77.4
SMF51A	CZ	56.7	1.0	51	1.0	2.4	82.4

Notes: (1) Pulse test: $t_p \leq 50ms$
(2) Surge current waveform: 10/1000 μs
(3) All terms and symbols are consistent with ANSI/IEEE C62.35

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Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 – Peak Pulse Power Rating Curve

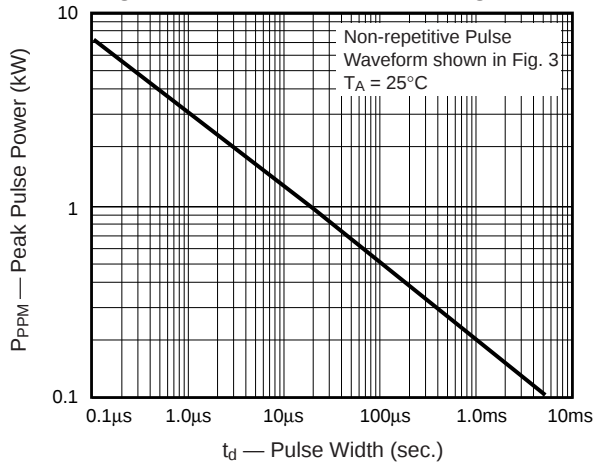


Fig. 2 – Pulse Derating Curve

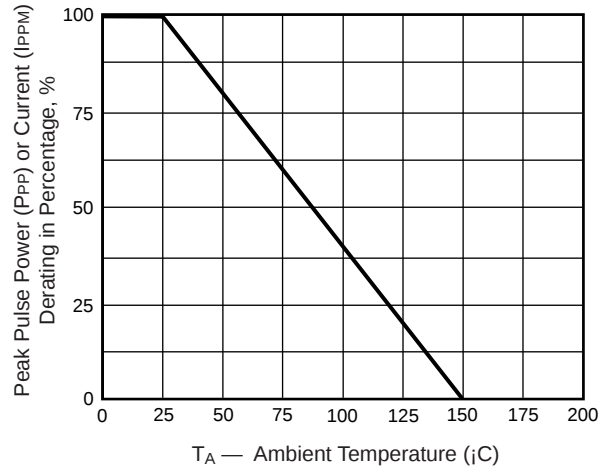


Fig. 3 – Pulse Waveform

