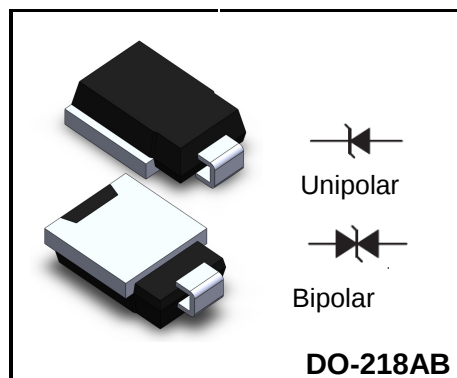


Surface Mount Automotive Transient Voltage Suppressors
4600watts/3600watts

V_{WM} : 10V~36V

V_{BR} : 11.1~44.2V



FEATURES

- ♦ Ideally suited for load dump protection
- ♦ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ♦ High temperature stability due to unique oxide passivation and patented PAR® construction
- ♦ Integrally molded heatsink provides a very low thermal resistance for maximum heat dissipation
- ♦ Low leakage current at $T_J = 175^{\circ}\text{C}$
- ♦ High temperature soldering guaranteed: 260°C for 10 seconds at terminals
- ♦ Meets ISO7637-2 surge spec.
- ♦ Low forward voltage drop.

MECHANICAL DATA

- ♦ Case: DO-218AB
- ♦ Terminals: Plated, solderable per MIL-STD-750, Method 2026
- ♦ Approx. Weight: 2.58g / 0.091oz

Maximum Ratings and Electrical characteristics

Ratings at 25 ambient temperature unless otherwise specified.

Parameter		Symbol	Value	Unit
Peak pulse power dissipation with	10/1000 μs waveform	PPPM	4600	W
	10/10 000 μs waveform		3600	
Steady state power dissipation		P_D	6.0	W
Peak pulse current with a 10/1000 μs waveform (NOTE 1)		I_{PPM}	See Table 1	A
Peak forward surge current, 8.3ms single half sine-wave		I_{FSM}	600	V
Typical thermal resistance junction to case		$R_{\theta Jc}$	0.95	$^{\circ}\text{C/W}$
Operating junction and storage temperature range		T_J, T_{STG}	-55 to +175	$^{\circ}\text{C}$

NOTES:

1. Non-repetitive current pulse derated above $T_A = 25^{\circ}\text{C}$

Electrical Characteristics

Part Number		V_R	$I_R @ V_R$		$V_{BR} @ I_T$		I_T	$V_C @ I_{pp}$	I_{pp}
Uni-polar	Bi-polar	V	$\mu A @ 25^{\circ}C$	$\mu A @ 175^{\circ}$	min(V)	max (V)	mA	V	A
SM6S10A	SM6S10CA	10.0	15	250	11.1	12.3	5	17.0	271
SM6S11A	SM6S11CA	11.0	10	150	12.2	13.5	5	18.2	253
SM6S12A	SM6S12CA	12.0	10	150	13.3	14.7	5	19.9	231
SM6S13A	SM6S13CA	13.0	10	150	14.4	15.9	5	21.5	214
SM6S14A	SM6S14CA	14.0	10	150	15.6	17.2	5	23.2	198
SM6S15A	SM6S15CA	15.0	10	150	16.7	18.5	5	24.4	189
SM6S16A	SM6S16CA	16.0	10	150	17.8	19.7	5	26.0	177
SM6S17A	SM6S17CA	17.0	10	150	18.9	20.9	5	27.6	167
SM6S18A	SM6S18CA	18.0	10	150	20.0	22.1	5	29.2	158
SM6S20A	SM6S20CA	20.0	10	150	22.2	24.5	5	32.4	142
SM6S22A	SM6S22CA	22.0	10	150	24.4	26.9	5	35.5	130
SM6S24A	SM6S24CA	24.0	10	150	26.7	29.5	5	38.9	118
SM6S26A	SM6S26CA	26.0	10	150	28.9	31.9	5	42.1	109
SM6S28A	SM6S28CA	28.0	10	150	31.1	34.4	5	45.4	101
SM6S30A	SM6S30CA	30.0	10	150	33.3	36.8	5	48.4	95
SM6S33A	SM6S33CA	33.0	10	150	36.7	40.6	5	53.3	86
SM6S36A	SM6S36CA	36.0	10	150	40.0	44.2	5	58.1	79

Note:

① For all types maximum $V_F = 2.0 V$ at $I_F = 100 A$ measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum。

②. Surge waveform: 10/1000 μs

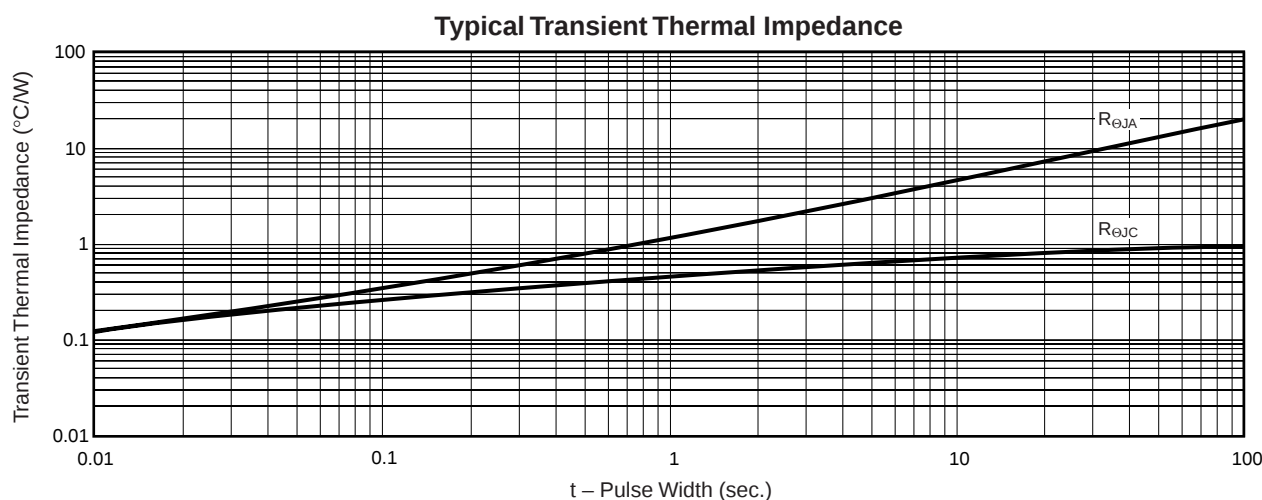
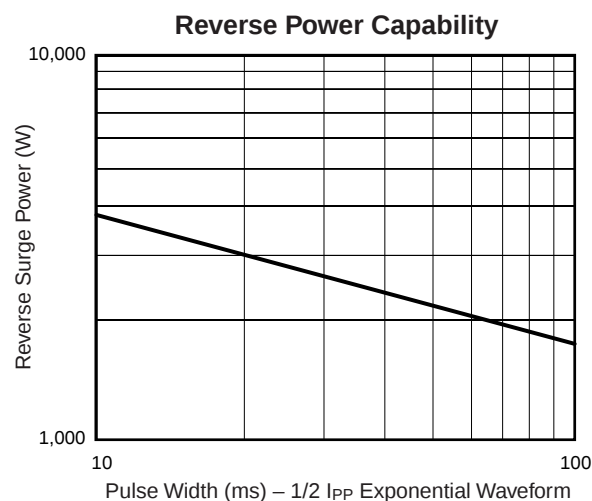
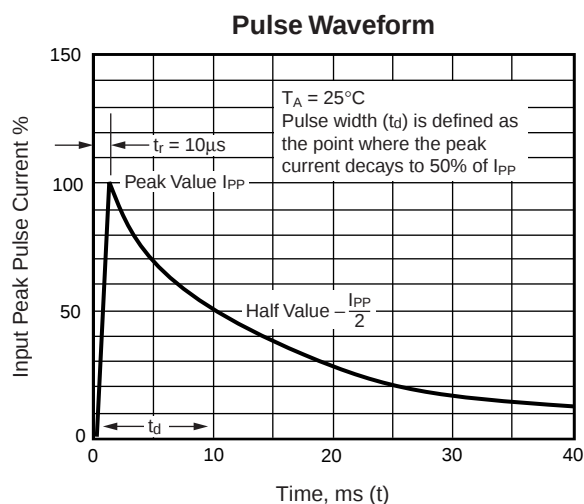
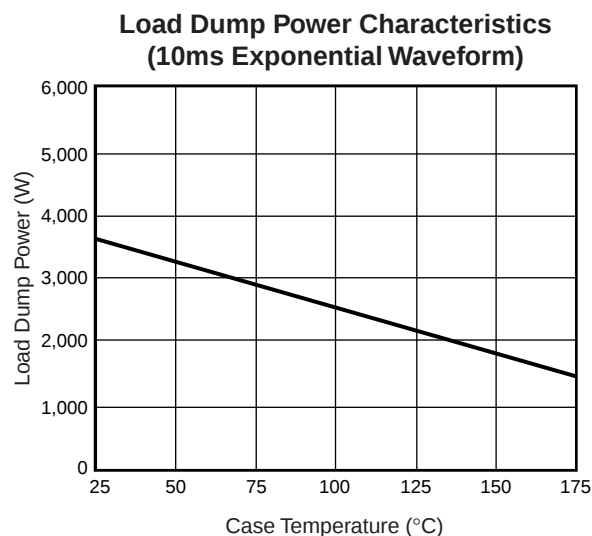
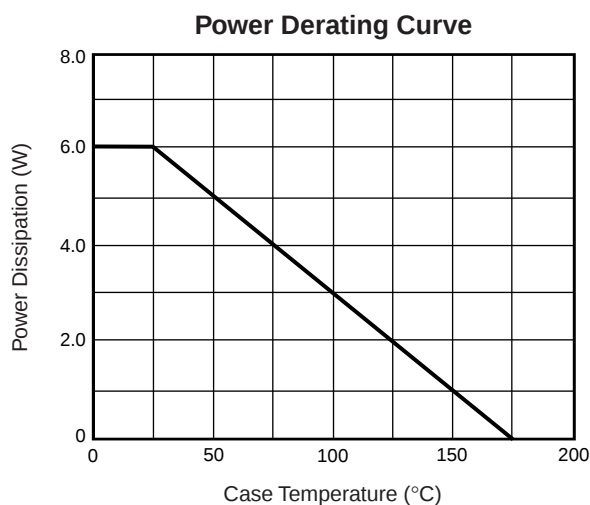
V_R : Stand-off Voltage -- Maximum voltage that can be applied V_{BR} : Breakdown Voltage

V_C : Clamping Voltage -- Peak voltage measured across the suppressor at a specified I_{pp}

I_R : Reverse Leakage Current

I_T : Test current

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



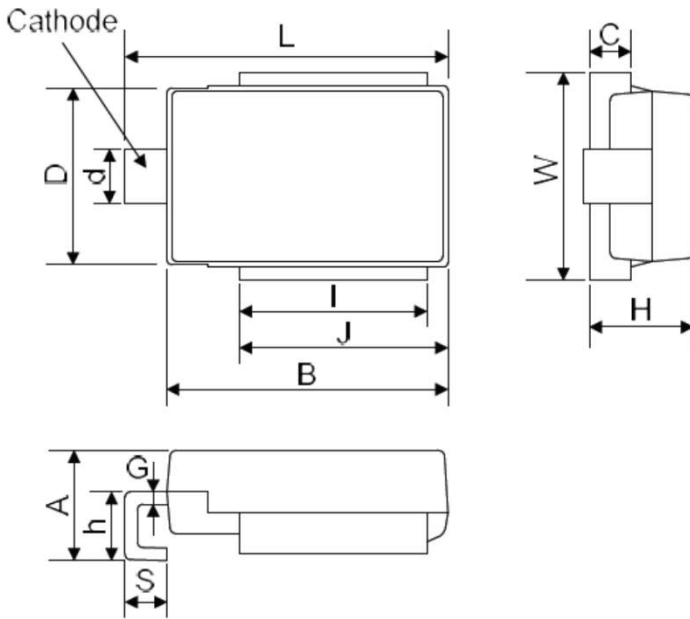
Ordering information

Model name	Package	Unit Weight	Base Quantity
SM8SXXXA	TO-218AB	0.0914oz(2.59g)	750pcs/reel

Package Dimensions

TO-218AB

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	4.8	5.8	0.189	0.228
B	13.3	13.7	0.524	0.539
C	1.7	2.3	0.067	0.091
D	8.3	8.7	0.327	0.343
d	2.3	3.1	0.091	0.122
G	0.5	0.7	0.020	0.028
H	4.9	5.2	0.193	0.205
h	2.5	3.9	0.098	0.154
I	8.7	9.3	0.343	0.366
J	9.7	10.3	0.382	0.406
W	9.5	10.5	0.374	0.414
S	1.5	2.5	0.059	0.099
L	15.0	16.0	0.591	0.630



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