

Transient Voltage Suppressors

FEATURES

- Available in uni-directional polarity only
- Peak pulse power:
 - 6600 W (10/1000 μ s)
- Stand off voltage range: 36V
- Bi directional types
- Low leakage current:
 - 10.0 μ A at 25 °C
- Operating $T_{j\max}$: 150 °C
- JEDEC registered package outline
- Resin meets UL 94, V0



DO-218AB



Bi-directional

Complies with the following standards

- ISO 10605, C = 150 pF, R = 330 Ω :
 - 30 kV (air discharge)
 - 30 kV (contact discharge)
- ISO 10605, C = 330 pF, R = 330 Ω :
 - 30 kV (air discharge)
 - 30 kV (contact discharge)
- ISO 7637-2^(a)
 - Pulse 1: $V_S = -100$ V
 - Pulse 2a: $V_S = +50$ V
 - Pulse 3a: $V_S = -150$ V
 - Pulse 3b: $V_S = +100$ V
 - Pulse 5a: $V_S = +87$ V

Order information

Device	Marking	Package	Shipping
SM8S66J36B	SM6S 36CA	DO-218AB	750

ELECTRICAL CHARACTERISTICS (JEDEC REGISTERED DATA) ($T_A = 25$ °C unless otherwise noted)						
DEVICE TYPE	BREAKDOWN VOLTAGE V_{BR} AT I_T ⁽¹⁾ (V)		TEST CURRENT I_T (mA)	STAND-OFF VOLTAGE V_{WM} (V)	MAXIMUM REVERSE LEAKAGE AT V_{WM} I_D (μ A)	MAXIMUM PEAK PULSE CURRENT I_{PPM} ⁽²⁾ (A)
	MIN.	MAX.				
SM8S66J36B	40.5	44.5	5.0	36.0	10	114
						58.2

Notes

⁽¹⁾ Pulse test: $t_p \leq 50$ ms

⁽²⁾ Surge current waveform per fig. 3 and derate per fig. 2

⁽³⁾ All terms and symbols are consistent with ANSI/IEEE CA62.35

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IEC Compatibility

ISO7637 2 Test 5A Test Waveform							
Part Number	12V system	24V system	Resistance				
	100V@400ms	174V@350ms	0.5Ω	1Ω	2Ω	4Ω	8Ω
SM8S66J36B	-	✓	-	-	-	✓	✓

RATINGS AND CHARACTERISTICS CURVES ($T_A = 25\text{ }^{\circ}\text{C}$ unless otherwise noted)

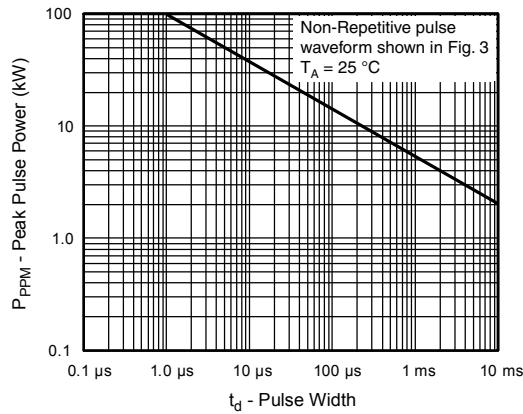


Fig. 1 - Peak Pulse Power Rating Curve

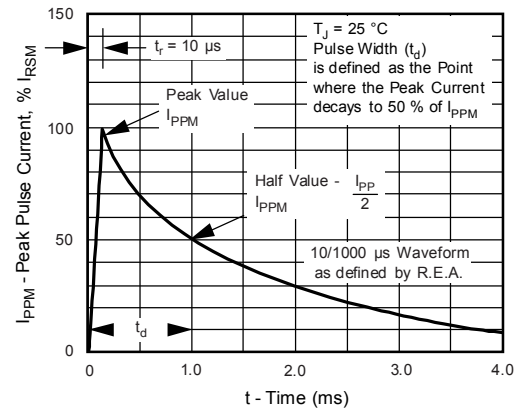


Fig. 3 - Pulse Waveform

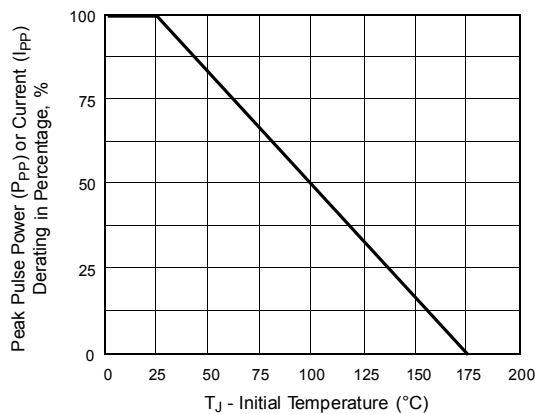


Fig. 2 - Pulse Power or Current vs. Initial Junction Temperature

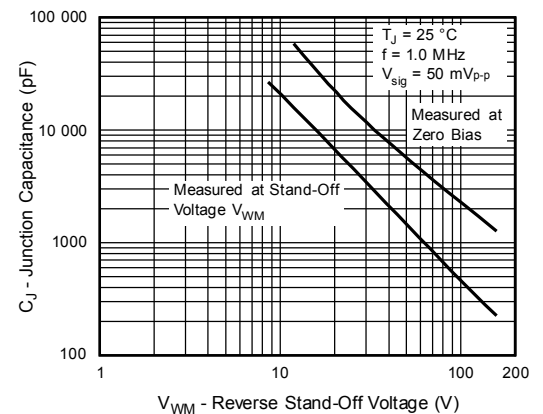


Fig. 4 - Typical Junction Capacitance

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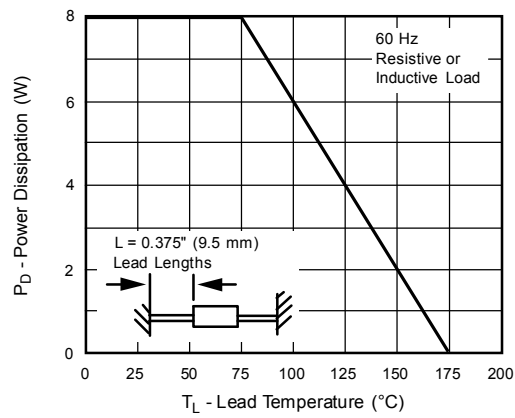
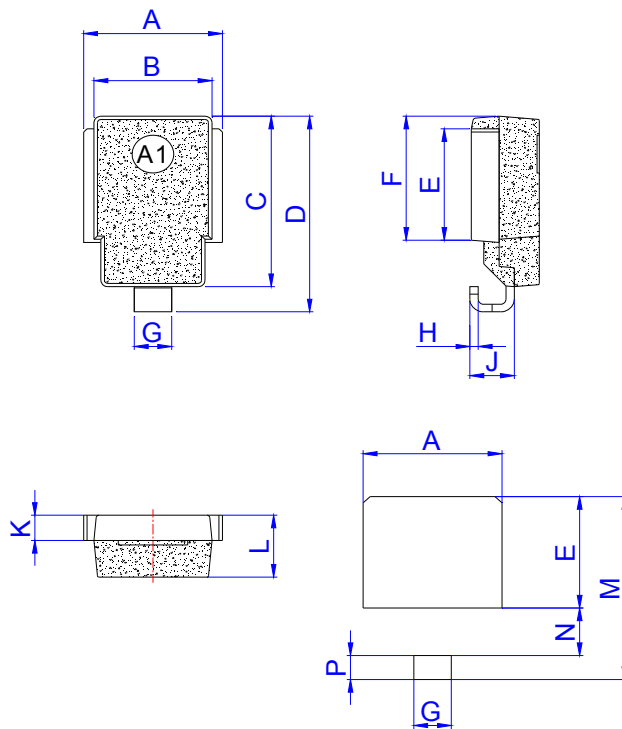


Fig. 5 - Power Derating Curve

PACKAGE MECHANICAL DATA



DO-218AB

Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	9.5	10.5	0.374	0.413
B	8.3	8.7	0.327	0.342
C	13.3	13.7	0.524	0.539
D	15.0	16.0	0.592	0.628
E	8.5	9.1	0.335	0.358
F	9.5	10.1	0.374	0.398
G	2.4	3.0	0.094	0.118
H	0.5	0.7	0.020	0.028
J	2.7	3.7	0.106	0.146
K	1.9	2.1	0.075	0.083
L	4.7	5.1	0.185	0.201
M	14.2	14.8	0.559	0.583
N	3.5	4.1	0.138	0.161
P	1.6	2.2	0.063	0.087