

Features

- SM8SxxA available in Uni-directional polarity only
- SM8SxxCA available in bi-directional polarity only
- Low leakage current
- Low forward voltage drop
- Compliant to Halogen-free



DO-218AB

Mechanical Data

- Package: DO-218AB
- Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD 22-B102, HE3 suffix meets JESD 201 class 2 whisker test.
- Polarity: Heatsink is anode.

Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER		SYMBOL	VALUE	UNIT
Peak pulse power dissipation	with 10/1000 μ s waveform	P_{PPM}	6600	W
	with 10/10 000 μ s waveform		5200	
Power dissipation on infinite heatsink at $T_C = 25^\circ\text{C}$ (fig. 1)		P_D	8.0	W
Peak pulse current with 10/1000 μ s waveform		$I_{PPM}^{(1)}$	See next table	A
Peak forward surge current		$I_{FSM}^{(2)}$	700	A
Operating junction and storage temperature range		T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

Note

- (1) Non-repetitive current pulse derated above $T_A = 25^\circ\text{C}$
- (2) Measured on 8.3ms single half sine wave for unidirectional device only.

ELECTRICAL CHARACTERISTICS (T_C = 25 °C unless otherwise noted)

DEVICE TYPE	BREAKDOWN VOLTAGE V _{BR} (V)			TEST CURRENT I _T (mA)	STAND-OFF VOLTAGE V _{WM} (V)	MAXIMUM REVERSE LEAKAGE AT V _{WM} I _D (μA)	MAXIMUM REVERSE LEAKAGE AT V _{WM} T _J = 150 °C I _D (μA)	MAX. PEAK PULSE CURRENT AT 10/1000 μs WAVEFORM (A)	MAXIMUM CLAMPING VOLTAGE AT I _{PPM} V _C (V)
	MIN.	NOM.	MAX.						
SM8S10(C)A	11.1	11.7	12.3	5.0	10.0	10	250	388	17.0
SM8S11(C)A	12.2	12.9	13.5	5.0	11.0	10	250	363	18.2
SM8S12(C)A	13.3	14.0	14.7	5.0	12.0	10	250	332	19.9
SM8S13(C)A	14.4	15.2	15.9	5.0	13.0	10	150	307	21.5
SM8S14(C)A	15.6	16.4	17.2	5.0	14.0	10	150	284	23.2
SM8S15(C)A	16.7	17.6	18.5	5.0	15.0	10	150	270	24.4
SM8S16(C)A	17.8	18.8	19.7	5.0	16.0	10	150	254	26.0
SM8S17(C)A	18.9	19.9	20.9	5.0	17.0	10	150	239	27.6
SM8S18(C)A	20.0	21.1	22.1	5.0	18.0	10	150	226	29.2
SM8S20(C)A	22.2	23.4	24.5	5.0	20.0	10	150	204	32.4
SM8S22(C)A	24.4	25.7	26.9	5.0	22.0	10	150	186	35.5
SM8S24(C)A	26.7	28.1	29.5	5.0	24.0	10	150	170	38.9
SM8S26(C)A	28.9	30.4	31.9	5.0	26.0	10	150	157	42.1
SM8S28(C)A	31.1	32.8	34.4	5.0	28.0	10	150	145	45.4
SM8S30(C)A	33.3	35.1	36.8	5.0	30.0	10	150	136	48.4
SM8S33(C)A	36.7	38.7	40.6	5.0	33.0	10	150	124	53.3
SM8S36(C)A	40.0	42.1	44.2	5.0	36.0	10	150	114	58.1
SM8S40(C)A	44.4	46.8	49.1	5.0	40.0	10	150	102	64.5
SM8S43(C)A	47.8	50.3	52.8	5.0	43.0	10	150	95	69.4

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

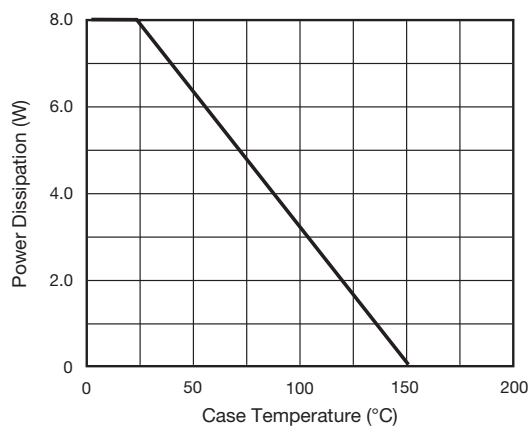


Fig. 1 - Power Derating Curve

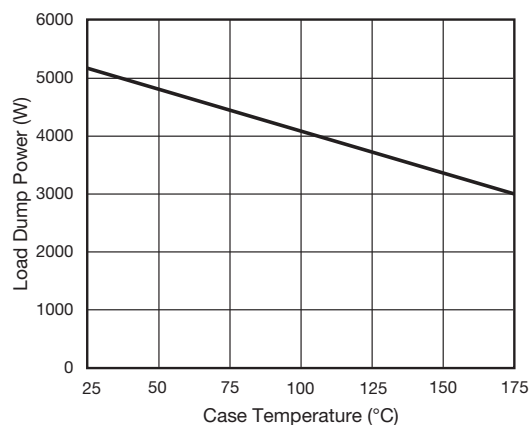


Fig. 2 - Load Dump Power Characteristics
(10 ms Exponential Waveform)

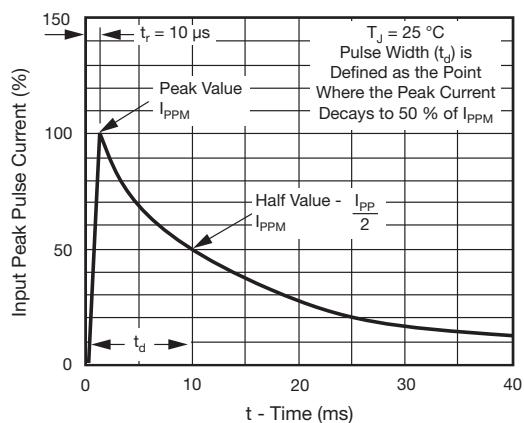


Fig. 3 - Pulse Waveform

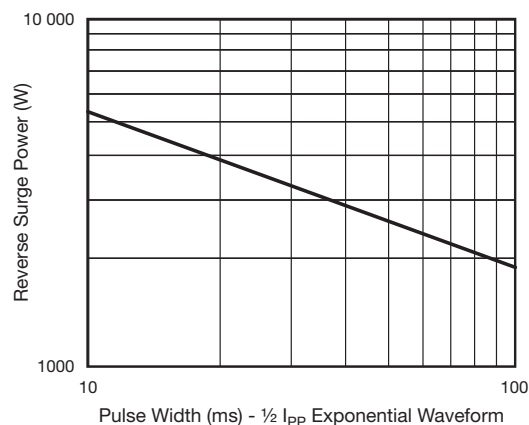
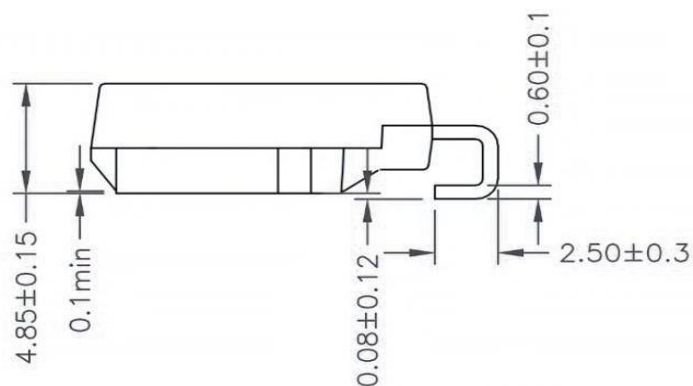
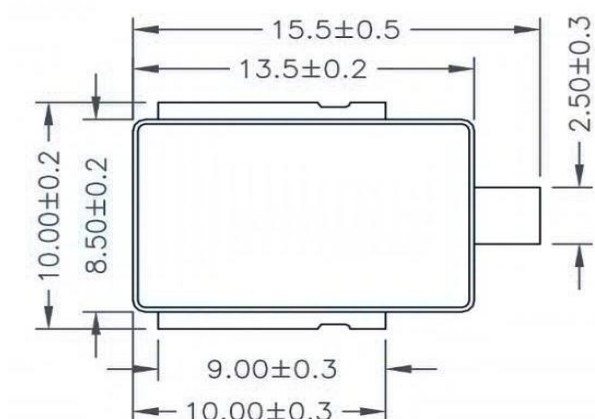


Fig. 4 - Reverse Power Capability

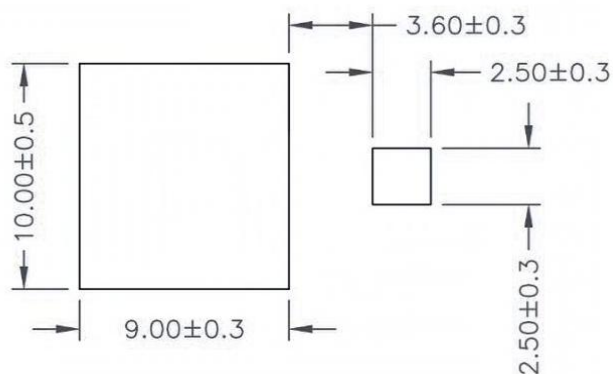
OUTLINE DIMENSIONS

DO-218AB



(millimeters)

MOUNTING PAD LAYOUT



(millimeters)