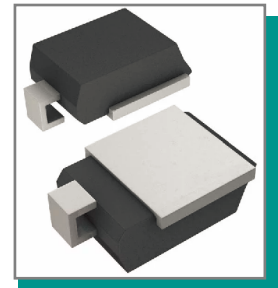


### Features

- 6600 watts Peak Pulse Power (10/1000μs)
- Available in uni-directional polarity only
- Junction passivation optimized design passivated anisotropic rectifier technology
- Low leakage current
- Low forward voltage drop
- High surge capability
- Meets ISO7637-2 surge specification (varied by test condition)



**DO-218AB**

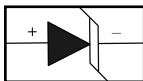


### Mechanical Characteristics

- JEDEC DO-218AB package
- Molding compound flammability rating: UL 94V-0
- Marking: Marking Code
- Heatsink is anode

### Applications

- Use in sensitive electronics protection against voltage transients induced by inductive load switching and lighting, especially for automotive load dump protection application.



Schematic & PIN Configuration

<b>Absolute Maximum Rating</b>			
Rating	Symbol	Value	Units
Peak Pulse Power (tp =10/1000μs) (see Note1,2&3)	P <sub>PPM</sub>	6600	Watts
Peak pulse current (10/1000μs) (see Note2&3)	I <sub>PPM</sub>	See Electrical Characteristics	A
Peak forward surge current (see Note4&5)	I <sub>FSM</sub>	700	A
Power dissipation on infinite heat sink T <sub>A</sub> = 25 °C (Fig5)	P <sub>D</sub>	8	W
Operating junction temperature range	T <sub>J</sub>	-55 to + 175	°C
Storage temperature range	T <sub>STG</sub>	-55 to + 175	°C

**Note1:** Peak Pulse Power Rating as Pulse Width ,per Fig1.

**Note2:** Peak Pulse Power or Current Derated above T<sub>A</sub>=25°C Per Fig. 2 and Non-Repetitive Current Pulse,Per Fig6.

**Note3:** Mounted on 5.0x5.0mm<sup>2</sup> copper pad to each terminal.

**Note4:** 8.3ms Single Half Sine Wave or Equivalent Square Wave.

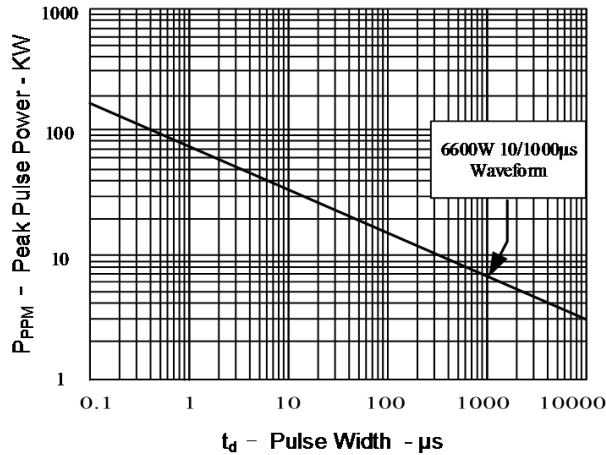
**Note5:** Maximum Forward Surge Current per Fig6.

## Electrical Characteristics

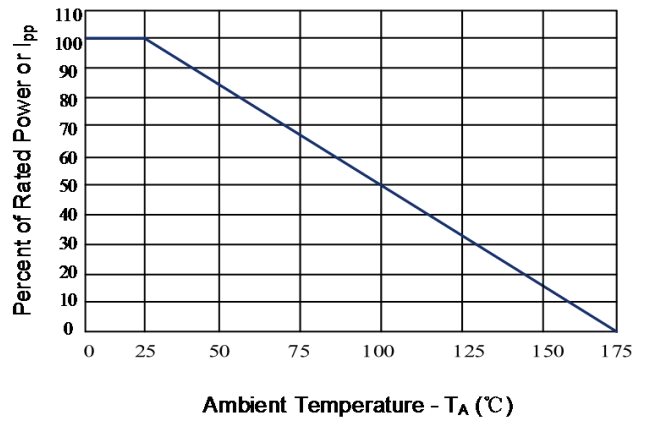
Part Number	Reverse Standoff Voltage V <sub>RWM</sub> (Volts)	Breakdown Voltage V <sub>BR</sub> (Volts)@I <sub>T</sub>		Test Current I <sub>T</sub> (mA)	Maximum Clamping Voltage V <sub>C</sub> @I <sub>PP</sub> (Volts)	Maximum Peak Pulse Current I <sub>pp</sub> (Amps)	Maximum Reverse Leakage I <sub>R</sub> @V <sub>RWM</sub> (μA)
		MIN	MAX				
SM8S10A	10	11.1	12.3	5	17.0	388	15
SM8S11A	11	12.2	13.5	5	18.2	363	10
SM8S12A	12	13.3	14.7	5	19.9	332	10
SM8S13A	13	14.4	15.9	5	21.5	307	10
SM8S14A	14	15.6	17.2	5	23.2	284	10
SM8S15A	15	16.7	18.5	5	24.4	270	10
SM8S16A	16	17.8	19.7	5	26.0	254	10
SM8S17A	17	18.9	20.9	5	27.6	239	10
SM8S18A	18	20.0	22.1	5	29.2	226	10
SM8S20A	20	22.2	24.5	5	32.4	204	10
SM8S22A	22	24.4	26.9	5	35.5	186	10
SM8S24A	24	26.7	29.5	5	38.9	170	10
SM8S26A	26	28.9	31.9	5	42.1	157	10
SM8S28A	28	31.1	34.4	5	45.4	145	10
SM8S30A	30	33.3	36.8	5	48.4	136	10
SM8S33A	33	36.7	40.6	5	53.3	124	10
SM8S36A	36	40.0	44.2	5	58.1	114	10
SM8S40A	40	44.4	49.1	5	64.5	102	10
SM8S43A	43	47.8	52.8	5	69.4	95.1	10

## Typical Characteristics

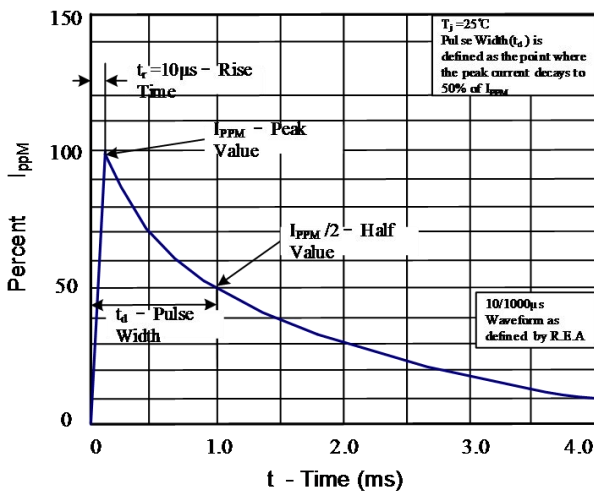
**Figure 1: Peak Pulse Power Rating Curve**



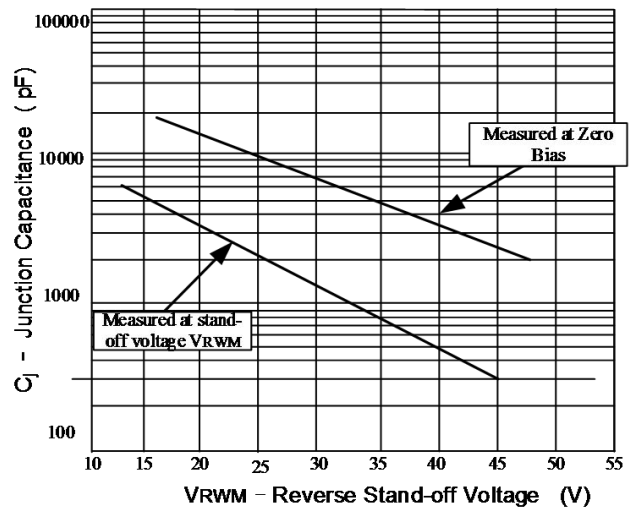
**Figure 2: Pulse Derating Curve**



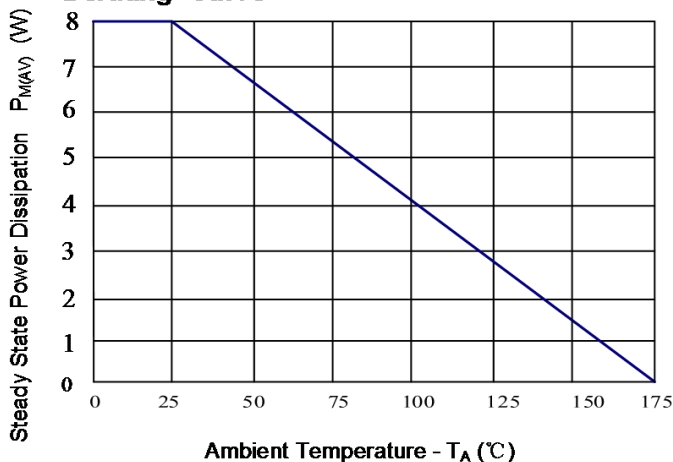
**Figure 3: Pulse Waveform**



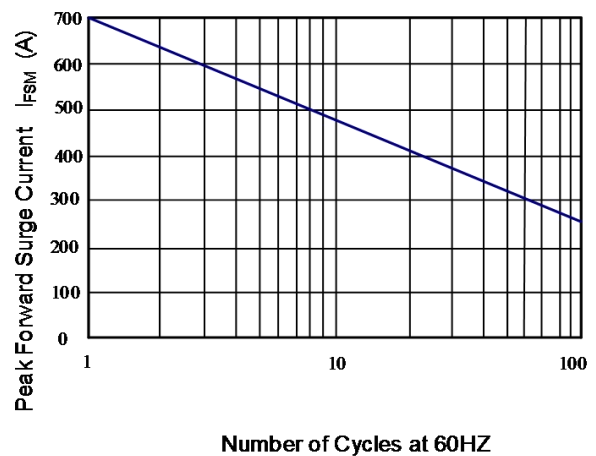
**Figure 4: Typical Junction Capacitance**



**Figure 5: Steady State Power Dissipation Derating Curve**

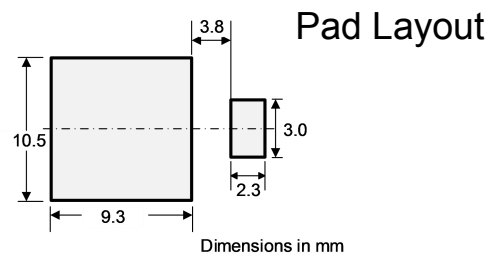
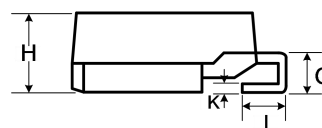
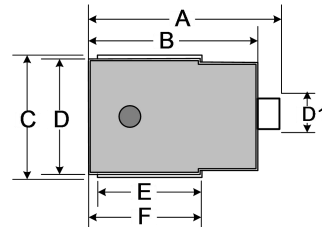


**Figure 6: Maximum Non-Repetitive**

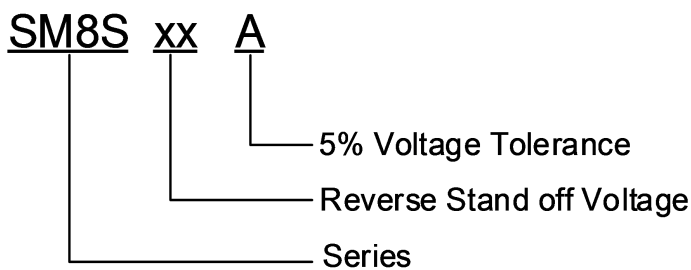


### Outline Drawing – (DO-218AB)

Ref. (mm)	Millimeters	
	Min.	Max.
A	15.0	16.0
B	13.3	13.7
C	9.5	10.5
D	8.3	8.7
D1	2.4	3.0
E	8.7	9.3
F	9.7	10.3
G	2.5	3.5
H	4.7	5.1
I	1.5	2.5
K	0.5	0.7



### Part Numbering System



### Package Information

Out line	Reel (pcs)	Per carton (pcs)	Packing Option
Taping	750	3000	box