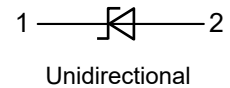


## Power TVS in DO-218AB

### Features

- Glass passivated chip
- 6600W peak pulse power(10/1000us)
- High accuracy, 5% tolerance
- Uni and Bidirectional unit
- Low clamping voltage
- Low Leakage current
- Very fast response time
- AEC-Q101 qualified



### Mechanical Data

- **Case:** DO-218AB(plastic package).  
RoHS compliant
- **Molding Compound Flammability Rating:**  
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:  
260 °C/10 sec. at terminals

### Applications

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

### Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

Parameter	Symbol	Value	Unit
Peak pulse power dissipation with a 10/1000us waveform <sup>(1)</sup>	P <sub>PP</sub>	6600	W
Maximum peak reverse pulse current a 10/1000us waveform <sup>(1)</sup>	I <sub>PP</sub>	See Next Table	A
Peak forward surge current 8.3ms single half sine-wave <sup>(2)</sup>	I <sub>FSM</sub>	700	A
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

Notes:

1.Non-repetitive current pulse,per Fig.5 and detated above TA=25°C per Fig.1

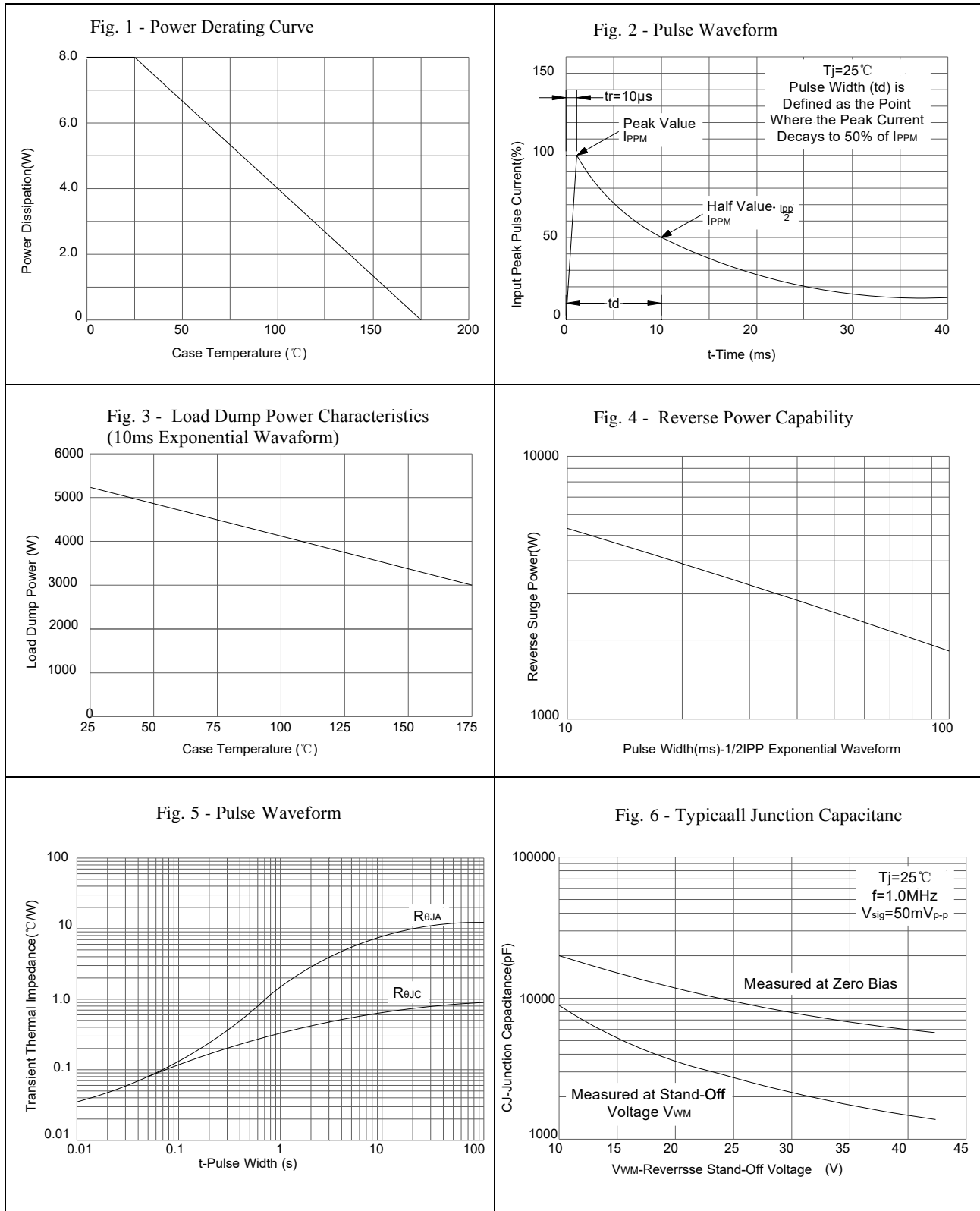
2.Measured on 8.3ms single half sine-wave,or equivalent square wave,duty cycle=4 pulses per minute maximum

**Electrical Characteristics**

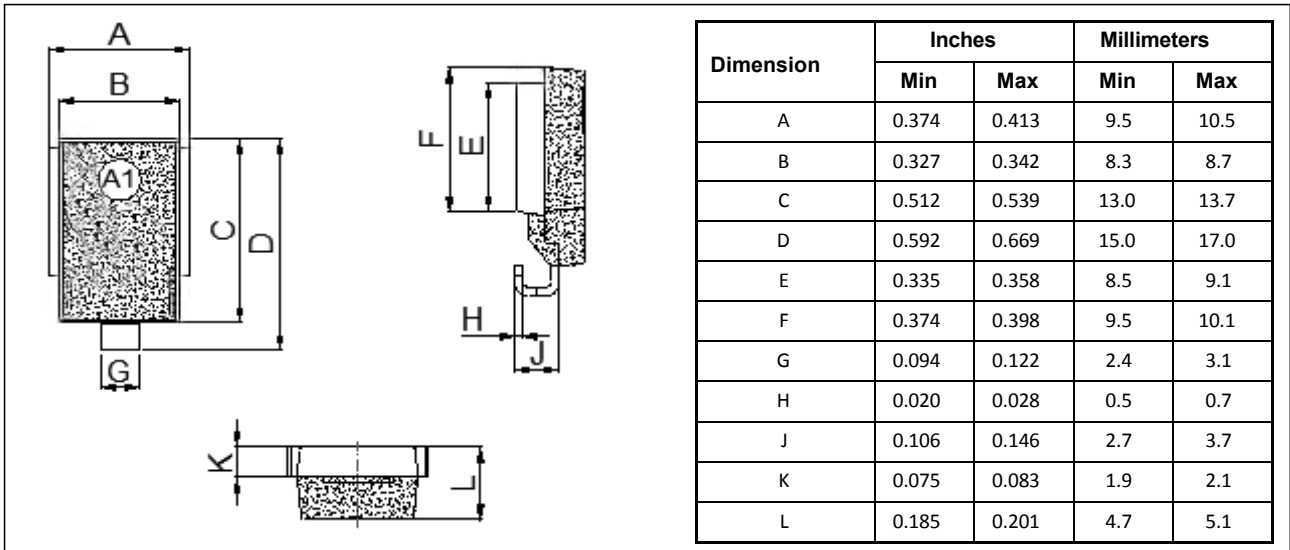
 (T<sub>A</sub> = 25 °C unless otherwise specified)

Part Number		Maximum Working Voltage V <sub>RWM</sub> (V)	Maximum Reverse Current@V <sub>RWM</sub> I <sub>R</sub> max(μA)	Breakdown Voltage@I <sub>T</sub>			Peak Surge Current I <sub>PP</sub> (A)	Maximum Clamping Voltage@I <sub>PP</sub> V <sub>C</sub> (V)
Uni-direction	Bi-direction			V <sub>BR</sub> min(V)	V <sub>BR</sub> max(V)	I <sub>T</sub> (mA)		
SM8S10A-HM	SM8S10CA-HM	10.0	15	11.1	12.8	5	388.00	17.0
SM8S11A-HM	SM8S11CA-HM	11.0	10	12.2	14.0	5	363.00	18.2
SM8S12A-HM	SM8S12CA-HM	12.0	10	13.3	15.3	5	332.00	19.9
SM8S23A-HM	SM8S23CA-HM	13.0	10	14.4	16.5	5	307.00	21.5
SM8S14A-HM	SM8S14CA-HM	14.0	10	15.6	17.9	5	284.00	23.2
SM8S15A-HM	SM8S15CA-HM	15.0	10	16.7	19.2	5	270.00	24.4
SM8S16A-HM	SM8S16CA-HM	16.0	10	17.8	20.5	5	254.00	26.0
SM8S17A-HM	SM8S17CA-HM	17.0	10	18.9	21.7	5	239.00	27.6
SM8S18A-HM	SM8S18CA-HM	18.0	10	20.0	23.3	5	226.00	29.2
SM8S20A-HM	SM8S20CA-HM	20.0	10	22.2	25.5	5	204.00	32.4
SM8S22A-HM	SM8S22CA-HM	22.0	10	24.4	28.0	5	186.00	35.5
SM8S24A-HM	SM8S24CA-HM	24.0	10	26.7	30.7	5	170.00	38.9
SM8S26A-HM	SM8S26CA-HM	26.0	10	28.9	33.2	5	157.00	42.1
SM8S28A-HM	SM8S28CA-HM	28.0	10	31.1	35.8	5	145.00	45.4
SM8S30A-HM	SM8S30CA-HM	30.0	10	33.3	38.3	5	136.00	48.4
SM8S33A-HM	SM8S33CA-HM	33.0	10	36.7	42.2	5	124.00	53.3
SM8S36A-HM	SM8S36CA-HM	36.0	10	40.0	46.0	5	114.00	58.1
SM8S40A-HM	SM8S40CA-HM	40.0	10	44.4	51.1	5	102.00	64.5
SM8S43A-HM	SM8S43CA-HM	43.0	10	47.8	52.8	5	95.10	69.4
SM8S45A-HM	SM8S45CA-HM	45.0	10	50.0	55.3	5	90.8	72.7
SM8S48A-HM	SM8S48CA-HM	48.0	10	53.3	58.9	5	85.3	77.4
SM8S51A-HM	SM8S51CA-HM	51.0	10	56.7	62.7	5	80.1	82.4
SM8S54A-HM	SM8S54CA-HM	54.0	10	60.0	66.3	5	75.8	87.1
SM8S58A-HM	SM8S58CA-HM	58.0	10	64.4	71.2	5	70.5	93.6
SM8S60A-HM	SM8S60CA-HM	60.0	10	66.7	73.7	5	68.1	96.8
SM8S64A-HM	SM8S64CA-HM	64.0	10	71.1	78.6	5	64.1	103
SM8S70A-HM	SM8S70CA-HM	70.0	10	77.8	86.0	5	58.4	113
SM8S75A-HM	SM8S75CA-HM	75.0	10	83.0	92.1	5	54.5	121
SM8S78A-HM	SM8S78CA-HM	78.0	10	86.0	95.8	5	52.4	126
SM8S85A-HM	SM8S85CA-HM	85.0	10	94.0	104	5	48.2	137

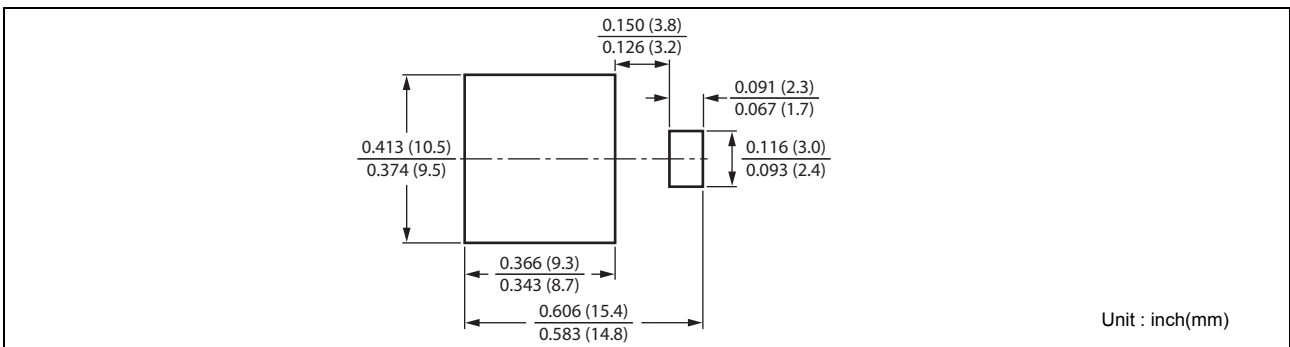
**Typical Characteristics** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$  unless otherwise specified)



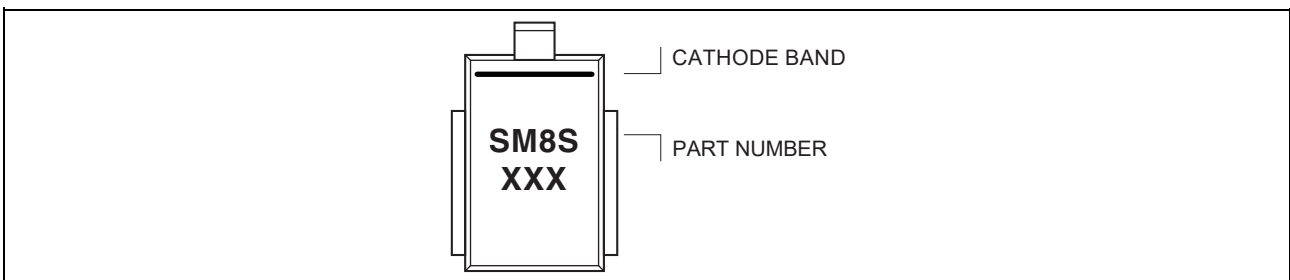
### Package Dimensions



### PAD Dimensions



### Marking



### Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
SM8S-HM Series	DO-218AB	Tape and reel	750pcs / reel	EIA STD RS-481

### Revision history

Date	Revision	Changes
23-May-2020	1.0	Initial release

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