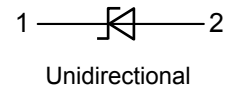
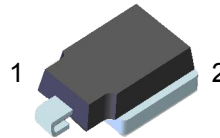


Power TVS in DO-218AB

Features

- Glass passivated chip
- 3600W 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 ⁽¹⁾	P _{PP}	3600	W
Maximum peak reverse pulse current a 10/1000us waveform ⁽¹⁾	I _{PP}	See Next Table	A
Peak forward surge current 8.3ms single half sine-wave ⁽²⁾	I _{FSM}	100	A
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150	°C

Notes:

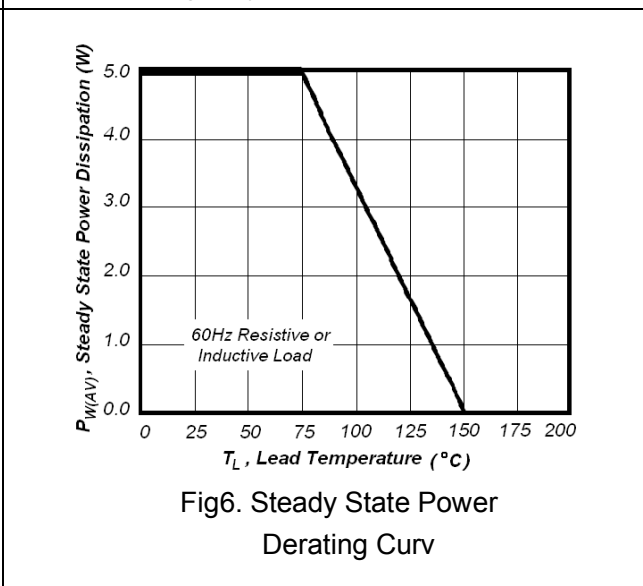
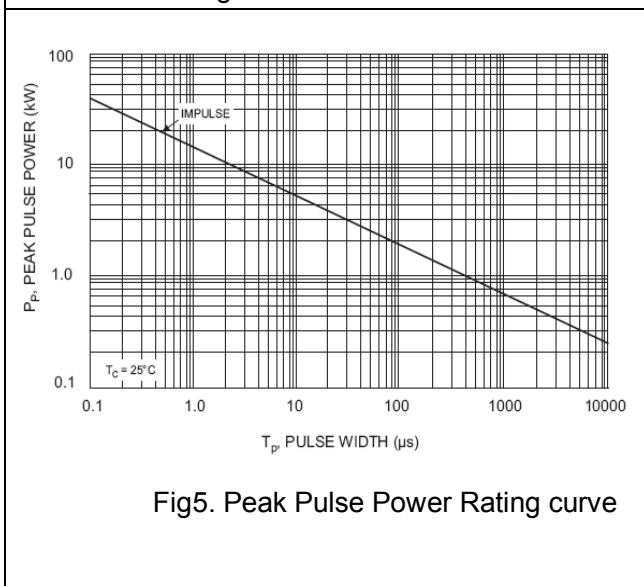
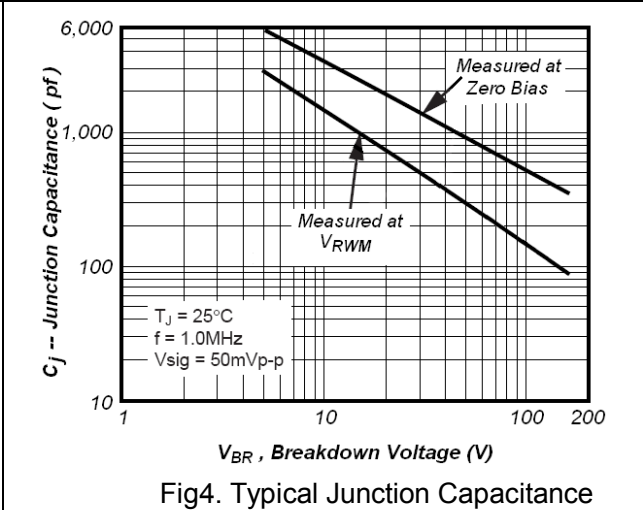
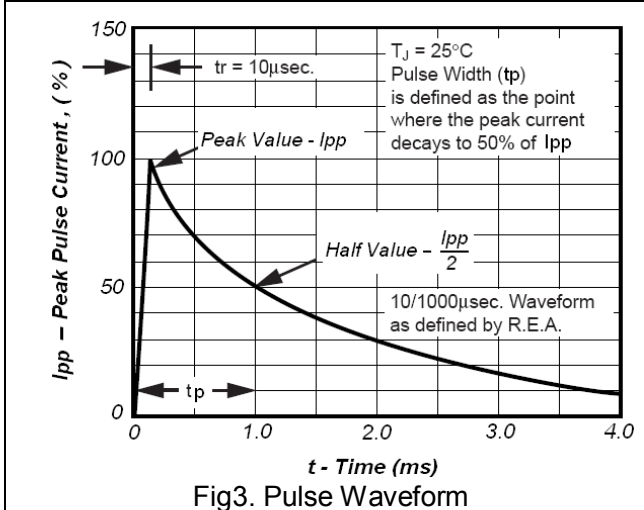
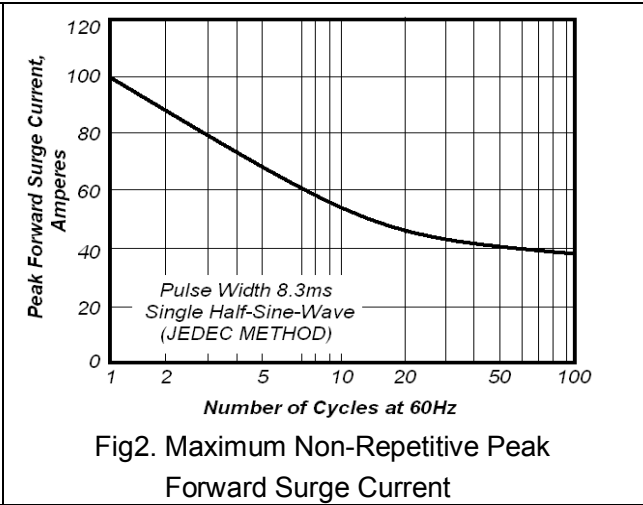
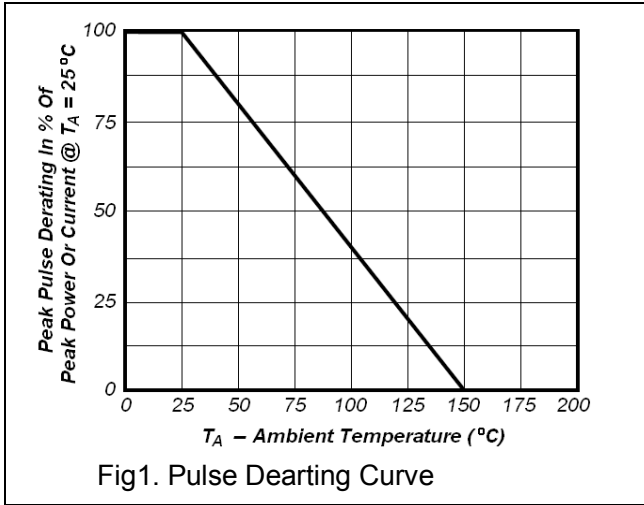
- 1.Non-repetitive current pulse,per Fig.5 and detated above TA=25°C per Fig.1
- 2.Measured on 8.3ms single half sine-wave,or equivalent square wave,duty cycle=4 pulses per minute maximum

Electrical Characteristics

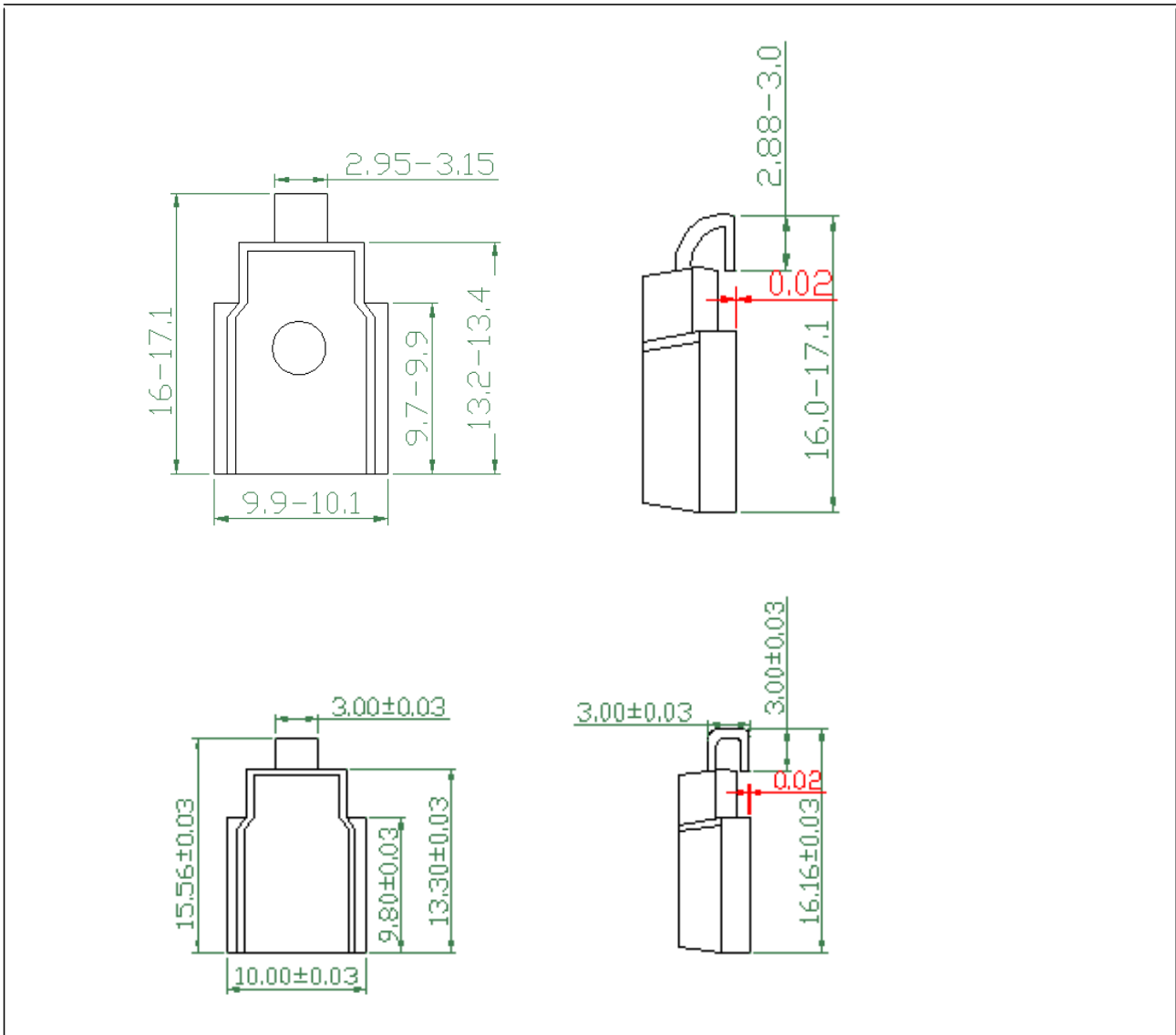
 (T_A = 25 °C unless otherwise specified)

Part Number		Reverse Stand off Voltage VR (V)	Breakdown Voltage VBR (V) @ IT		Test Current IT (mA)	Maximum Clamping Voltage VC @ IPP (V)	Maximum Peak Pulse Current IPP (A)	Maximum Reverse Leakage IR @ VR (μA)
UNI	BI		MIN	MAX				
SM5S15A	SM5S15CA	15	16.7	19.2	1	24.4	148	10
SM5S16A	SM5S16CA	16	17.8	20.5	1	26.0	138	10
SM5S17A	SM5S17CA	17	18.9	21.7	1	27.6	130	10
SM5S18A	SM5S18CA	18	20	23.3	1	29.2	123	10
SM5S20A	SM5S20CA	20	22.2	25.5	1	32.4	111	10
SM5S22A	SM5S22CA	22	24.4	28.0	1	35.5	101	10
SM5S24A	SM5S24CA	24	26.7	30.7	1	38.9	93	10
SM5S26A	SM5S26CA	26	28.9	33.2	1	42.1	86	10
SM5S28A	SM5S28CA	28	31.1	35.8	1	45.4	79	10
SM5S30A	SM5S30CA	30	33.3	38.3	1	48.4	74	10
SM5S33A	SM5S33CA	33	36.7	42.2	1	53.3	68	10
SM5S36A	SM5S36CA	36	40	46.0	1	58.1	62	10
SM5S40A	SM5S40CA	40	44.4	51.1	1	64.5	56	10
SM5S43A	SM5S43CA	43	47.8	54.9	1	69.4	51	10
SM5S45A	SM5S45CA	45	50	57.5	1	72.2	49	10
SM5S48A	SM5S48CA	48	53.3	61.3	1	77.4	46	10
SM5S51A	SM5S51CA	51	56.7	65.2	1	82.4	43	10
SM5S54A	SM5S54CA	54	60	69	1	87.1	41	10

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



Package Dimensions



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
SM5S 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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