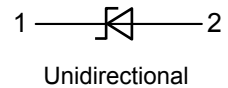
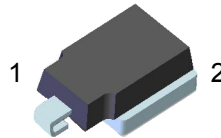


Power TVS in DO-218AB

Features

- Glass passivated chip
- 8000W peak pulse power(10/1000us)
- High accuracy, 5% tolerance
- Uni and Bidirectional unit
- Low clamping voltage
- Low Leakage current
- Very fast response time



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}	8000	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}	800	A
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150	°C

Notes:

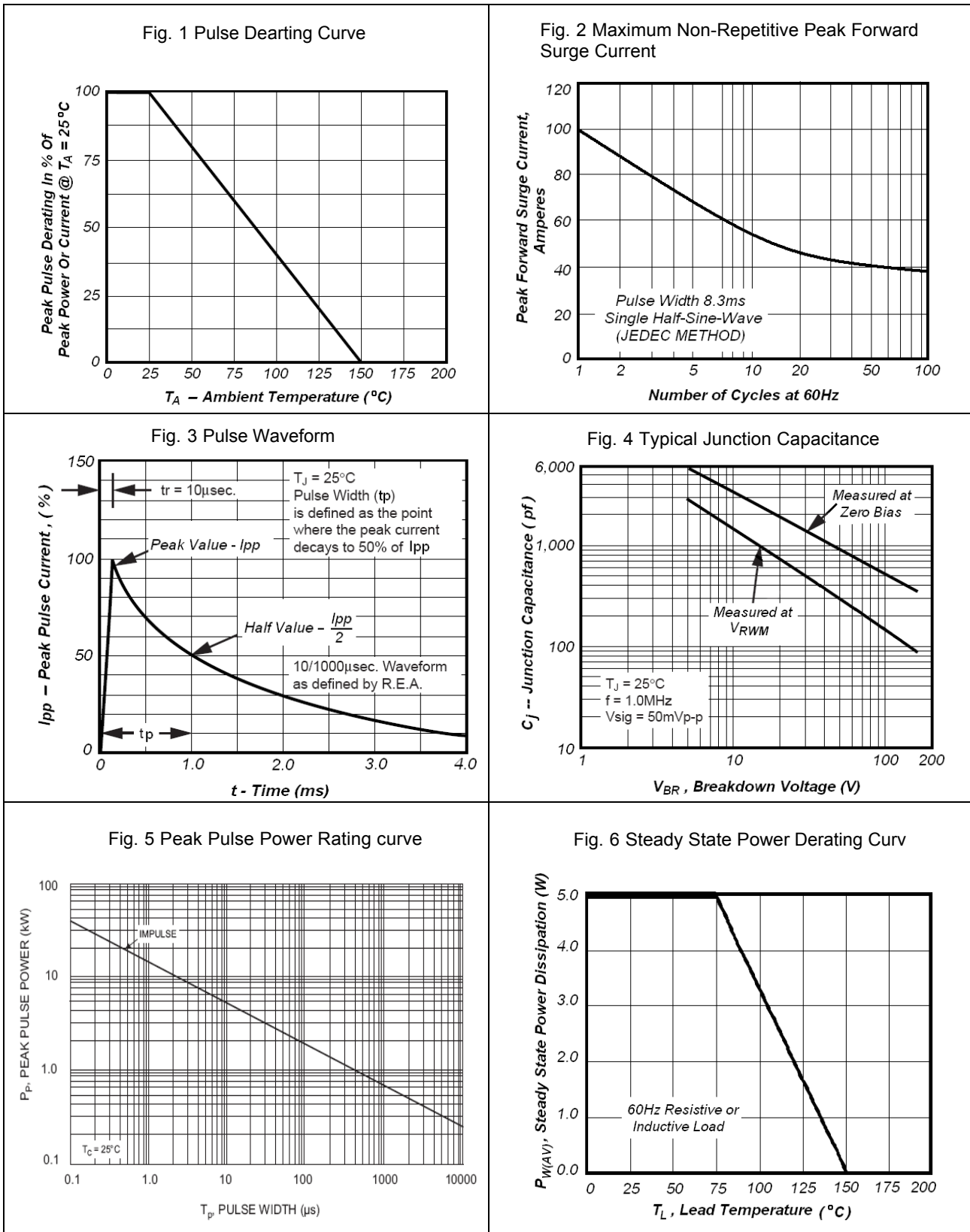
- 1.Non-repetitive current pulse,per Fig.5 and detated above TA=25°C per Fig.1
- 2.Measured on 8.3ms single half sine-wave,or equivalent square wave,duty cycle=4 pulses per minute maximum

Electrical Characteristics

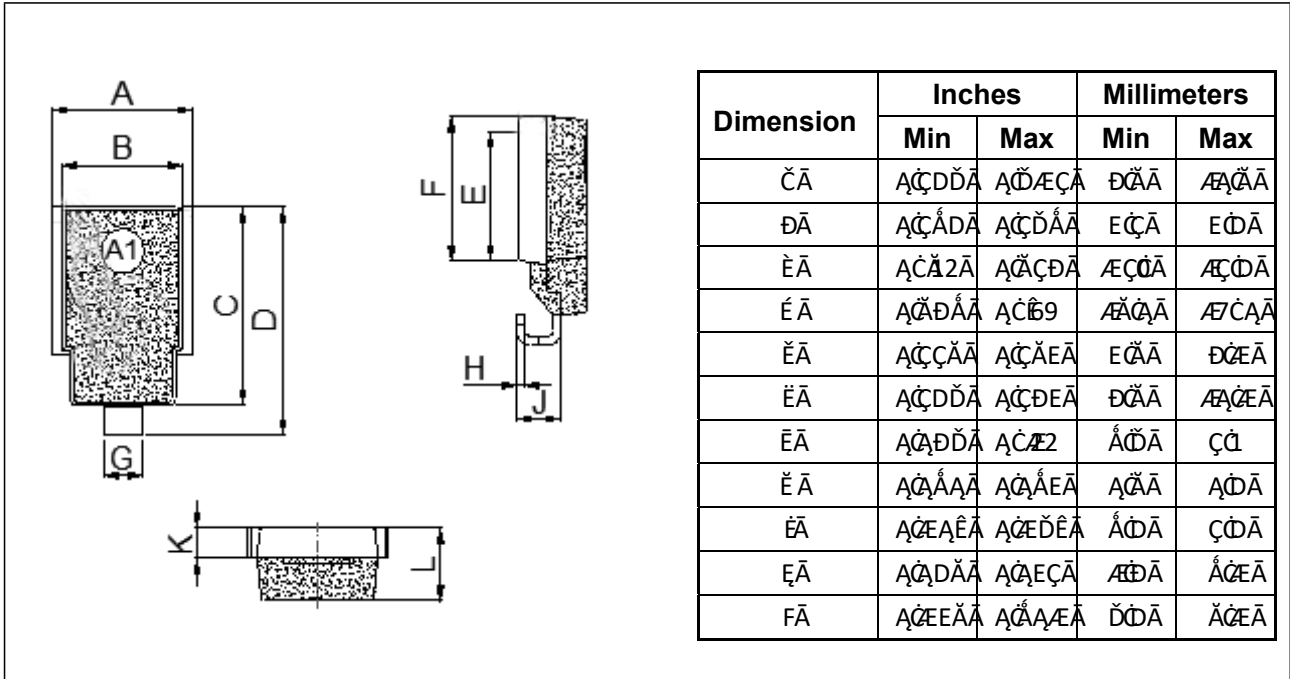
(T_A = 25 °C unless otherwise specified)

Part Number	Direction	Maximum Working Voltage V _{RWM} (V)	Maximum Reverse Current@V _{RWM} I _R max(μA)	Breakdown Voltage@I _T			Peak Surge Current I _{PP} (A)	Maximum Clamping Voltage@I _{PP} V _C (V)
				V _{BR} min(V)	V _{BR} max(V)	I _T (mA)		
SM8K18A	Uni-Dir	18.0	10	20.0	23.3	5	274.00	29.2
SM8K18CA	Bi-Dir	18.0	10	20.0	23.3	5	274.00	29.2
SM8K20A	Uni-Dir	20.0	10	22.2	25.5	5	247.00	32.4
SM8K20CA	Bi-Dir	20.0	10	22.2	25.5	5	247.00	32.4
SM8K22A	Uni-Dir	22.0	10	24.4	28.0	5	225.00	35.5
SM8K22CA	Bi-Dir	22.0	10	24.4	28.0	5	225.00	35.5
SM8K24A	Uni-Dir	24.0	10	26.7	30.7	5	205.60	38.9
SM8K24CA	Bi-Dir	24.0	10	26.7	30.7	5	205.60	38.9
SM8K26A	Uni-Dir	26.0	10	28.9	33.2	5	190.00	42.1
SM8K26CA	Bi-Dir	26.0	10	28.9	33.2	5	190.00	42.1
SM8K28A	Uni-Dir	28.0	10	31.1	35.8	5	176.00	45.4
SM8K28CA	Bi-Dir	28.0	10	31.1	35.8	5	176.00	45.4
SM8K30A	Uni-Dir	30.0	10	33.3	38.3	5	165.00	48.4
SM8K30CA	Bi-Dir	30.0	10	33.3	38.3	5	165.00	48.4
SM8K33A	Uni-Dir	33.0	10	36.7	42.2	5	150.00	53.3
SM8K33CA	Bi-Dir	33.0	10	36.7	42.2	5	150.00	53.3
SM8K36A	Uni-Dir	36.0	10	40.0	46.0	5	137.70	58.1
SM8K36CA	Bi-Dir	36.0	10	40.0	46.0	5	137.70	58.1
SM8K40A	Uni-Dir	40.0	10	44.4	51.1	5	124.00	64.5
SM8K40CA	Bi-Dir	40.0	10	44.4	51.1	5	124.00	64.5

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



Package Dimensions



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
SM8K 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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