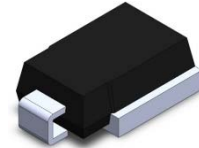


FEATURES

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- Available in uni-directional and bi-directional
- 6600W peak pulse power capability with
- Excellent clamping capability
- Meets ISO7637-2 surge specification (varied by test condition)



DO-218AB

TYPICAL APPLICATIONS

Use in sensitive electronics protection against voltage transients induced by inductive load switching and for consumer, automotive and telecommunication.

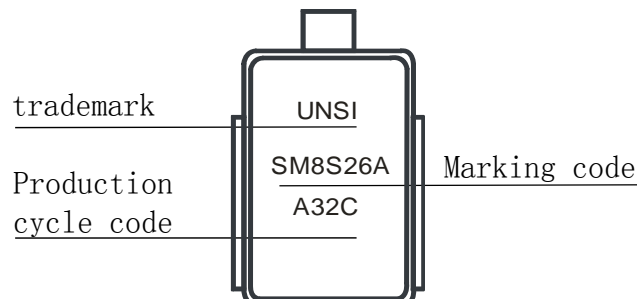
MECHANICAL DATA

Case: DO-218AB Epoxy meets UL 94V-0 flammability rating

reliability grade (AEC Q101 qualified)

Polarity: Color band denotes cathode end

Meets MSL level 1



MAXIMUM RATINGS (TA=25°C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Peak pulse power dissipation with a 10/1000 μ s waveform	PPPM	6600	W
Peak pulse current with a waveform	IPPM	See next table	A
Peak forward surge current 8.3 ms single half sine-wave uni-directional only	IFSM	700	A
Operating junction and storage temperature range	TJ, TSTG	-55 to +150	°C

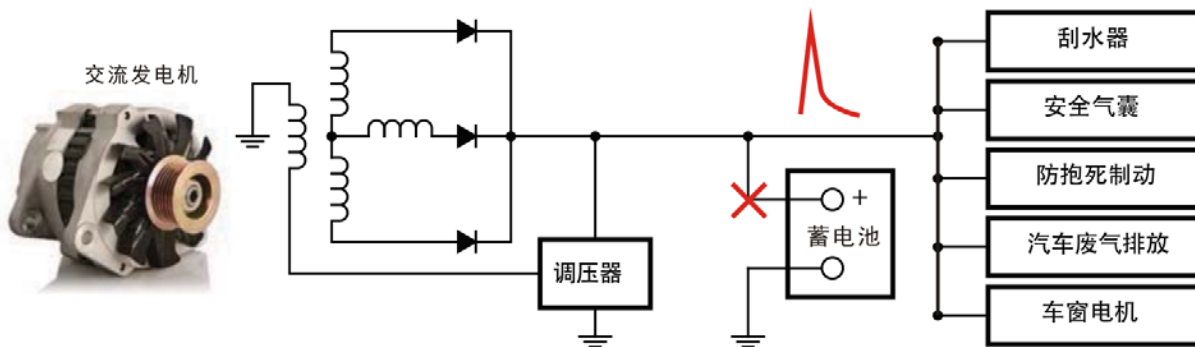
Notes:

- (1) Non-repetitive current pulse, per Fig. 3 and derated above TA = 25°C per
- (2) (2) Mounted on 25 x 25 mm copper pads to each terminal

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

Part Number		Breakdown voltage VBR@IT		Test Current IT	Reverse Stand off Voltage VRMV	Max. Reverse Leakage@ VRWM	Max. Clamping Voltage @IPP	Max. Peak Pulse Current
UNI	Bi	MIN (V)	MAX (V)	(mA)	V	uA	V	A
SM8S18A	SM8S18C	20	22.1	5	18	10	29.2	226
SM8S20A	SM8S20C	22.2	24.5	5	20	10	32.4	204
SM8S22A	SM8S22C	24.4	26.9	5	22	10	35.5	186
SM8S24A	SM8S24C	26.7	29.5	5	24	10	38.9	170
SM8S26A	SM8S26C	28.9	31.9	5	26	10	42.1	157
SM8S27A	SM8S27C	24	30	5	22	10	39	168
SM8S28A	SM8S28C	31.1	34.4	5	28	10	45.4	145
SM8S30A	SM8S30C	33.3	36.8	5	30	10	48.4	136
SM8S33A	SM8S33C	36.7	40.6	5	33	10	53.3	124
SM8S36A	SM8S36C	40	44.2	5	36	10	58.1	114
SM8S40A	SM8S40C	44.4	49.1	5	40	10	64.5	102
SM8S43A	SM8S43C	47.8	52.8	5	43	10	69.4	95.1

ISO-7637 throwing load model diagram



RATINGS AND CHARACTERISTICS CURVES

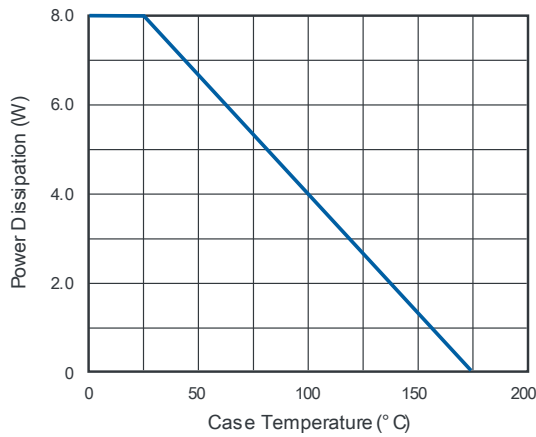


Fig. 1 - Power Derating Curve

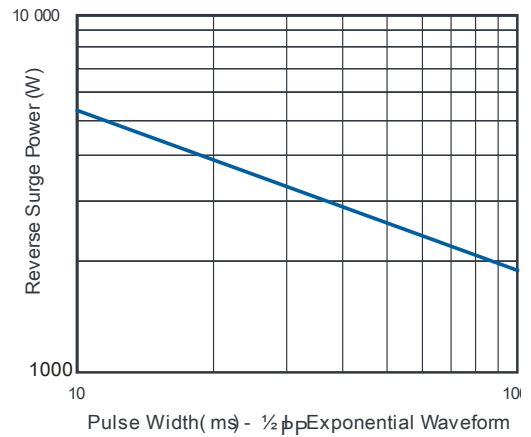


Fig. 4 - Reverse Power Capability

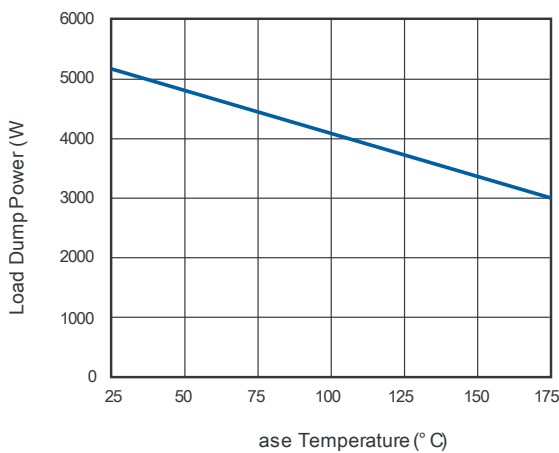


Fig. 2 - Load Dump Power Characteristics (10 ms Exponential Waveform)

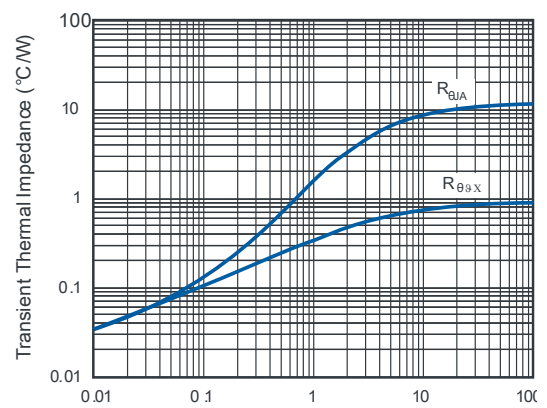


Fig. 5 - Typical Transient Thermal Impedance

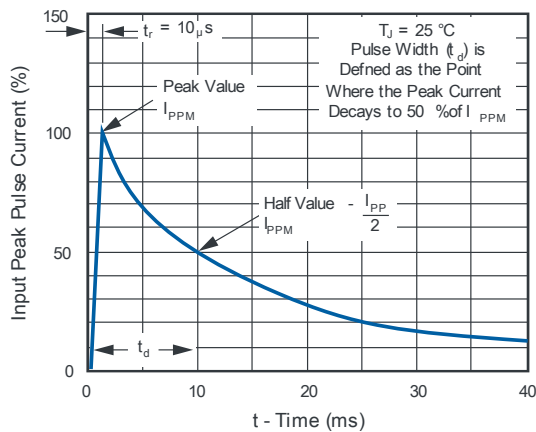


Fig. 3 - Pulse Waveform

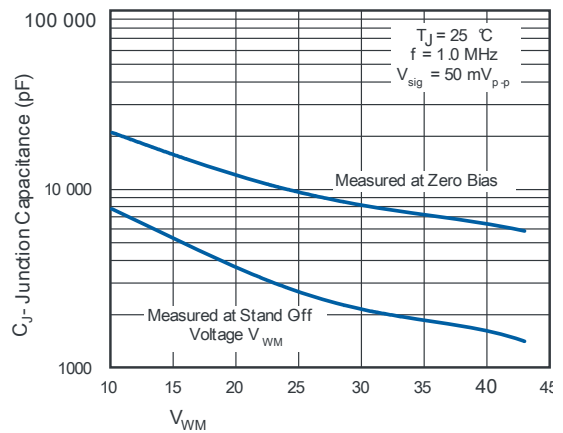
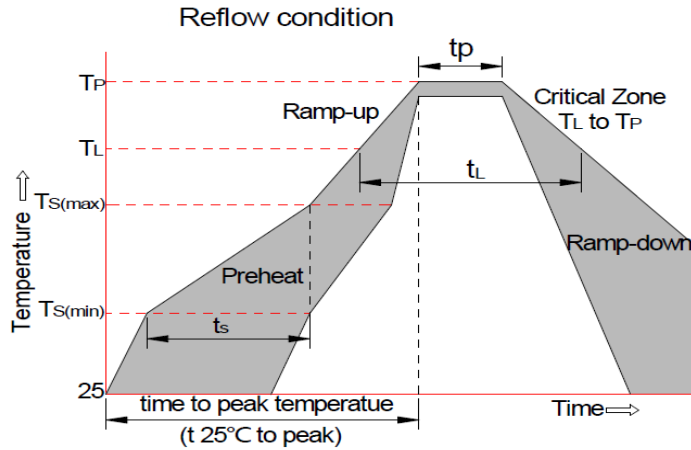


Fig. 6 - Typical Junction Capacitance

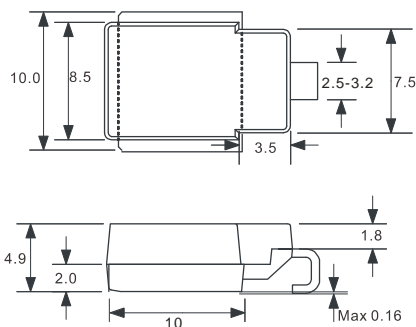
Soldering Parameters



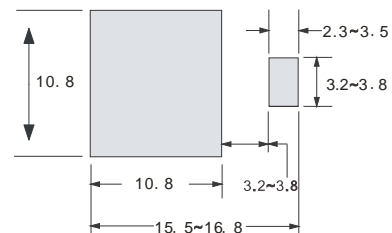
Reflow Condition		PbFree assembly (see asbelow)
Pre Heat	-Temperature Min (Ts(Min))	+150°C
	-Temperature Max(Ts(max))	+200°C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (TL) to peak)		3°C/sec. Max
	Ts(max) to TL -Ramp-up Rate	3°C/sec. Max
Reflow	-Temperature(TL)(Liquid us)	+217°C
	-Temperature(tL)	60-150 secs.
Peak Temp (Tp)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (tp)		30 secs. Max
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp (Tp)		8 min. Max
Do not exceed		+260°C

PACKAGE OUTLINE DIMENSIONS

in inches (millimeters)



Mounting Pad Layout



Unmarked tolerance: +0.5mm