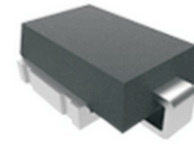


ATV36SM524A-G

Working Voltage: 24 Volts

Peak Pulse Power: 3600 Watts

RoHS Device

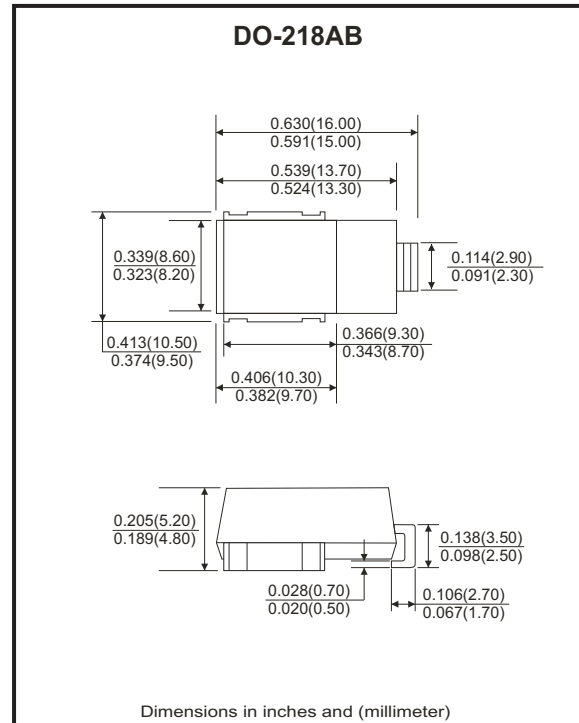


Features

- Glass passivated chip.
- 3600W peak pulse power capability with a 10/1000 μ s waveform, repetitive rate (duty cycle):0.01%
- Meets ISO7637-2 5a surge specification.
- Low leakage.
- Uni-directional polarity.
- Excellent clamping capability.
- Very fast response time.
- RoHS compliant.
- Comply with AEC-Q101

Mechanical Data

- Case: DO-218AB
- Epoxy: UL 94V-0 rate flame retardant.



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Parameter	Symbol	Value	Units
Peak power dissipation with a 10/1000 μ s waveform (Note 1)	P _{PP}	3600	W
Peak power dissipation with a 10/10,000 μ s waveform	P _{PP}	2800	W
Peak pulse current with a 10/1000 μ s waveform (Note 1)	I _{PP}	93.0	A
Power dissipation on infinite heatsink at T _L =25°C	P _D	5.0	W
Peak forward surge current, 8.3ms single half sine-wave uni-directional only	I _{FSM}	500	A
Operation junction temperature range	T _J	-55 to +175	°C
Storage temperature range	T _{STG}	-55 to +175	°C

Note:

1. Non-repetitive current pulse per Fig.2 and derated above T_A=25°C per Fig.1

Company reserves the right to improve product design , functions and reliability without notice.

REV: A

Electrical Characteristics (at $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Max	Unit
Working peak reverse voltage		V_{RWM}	-	24	V
Breakdown voltage	$I_T = 5\text{mA}$	V_{BR}	26.7	29.5	V
Reverse leakage current	$V_{\text{RWM}} = 24\text{V}$, $T_J = 25^{\circ}\text{C}$	I_{R}	-	10	μA
	$V_{\text{RWM}} = 24\text{V}$, $T_J = 175^{\circ}\text{C}$		-	150	
Reverse Surge current (Note 1)		I_{PP}	-	93.0	A
Clamping voltage	$I_{\text{PP}} = 93.0\text{A}$	V_{C}	-	38.9	V

Note:

1) Surge current waveform is defined at 10/1000 μs waveform.

Rating and Characteristics Curves (ATV36SM524A-G)

Fig.1 - Pulse Derating Curve

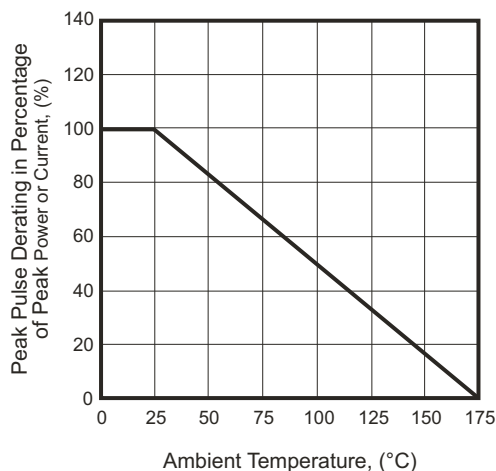


Fig.2 - Pulse Waveform

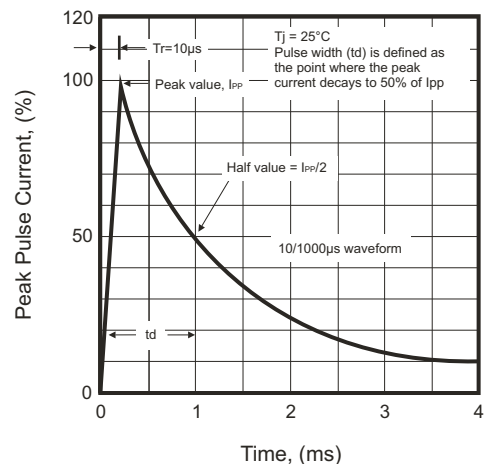


Fig.3 - Steady State Power Derating Curve

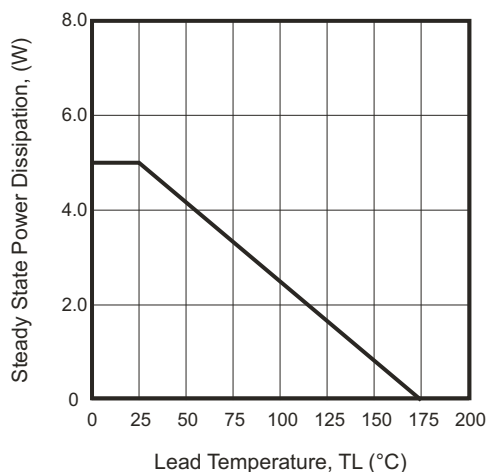
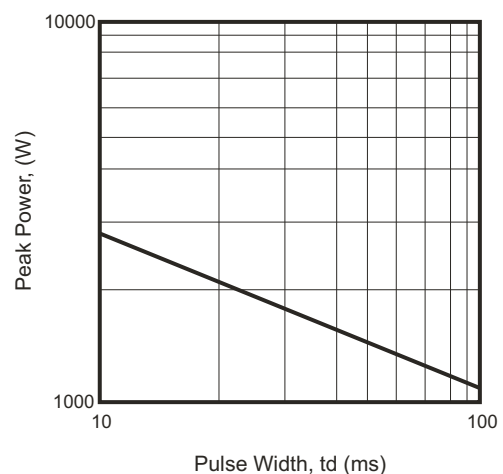


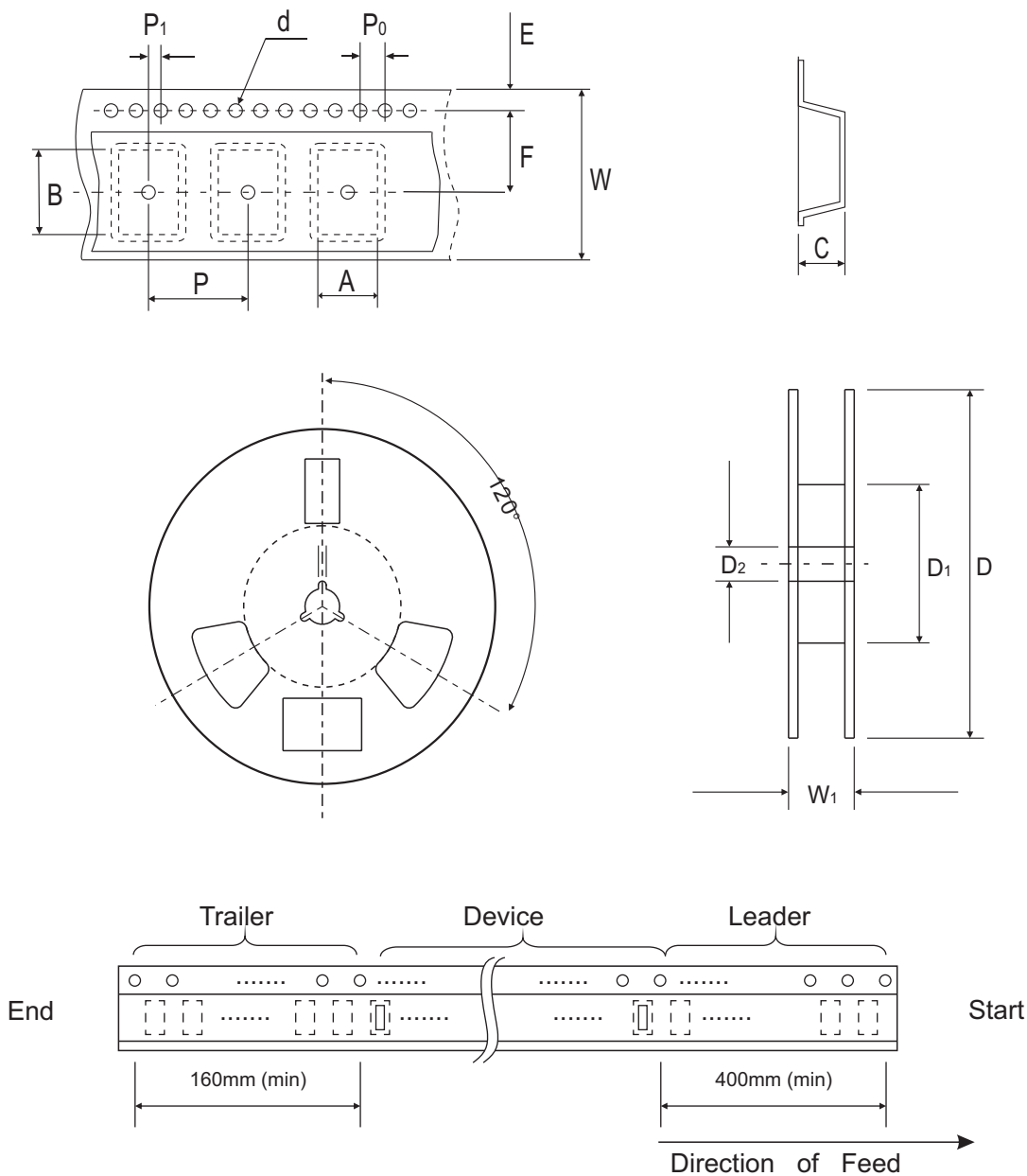
Fig.4 - Peak Pulse Power Rating Curve



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REV: A

Reel Taping Specification

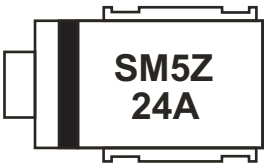


DO-218AB	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	10.77 ± 0.10	16.33 ± 0.10	6.02 ± 0.10	1.50 ± 0.10	330 ± 2.00	50.0 (MAX.)	20.2 (MAX.)
	(inch)	0.424 ± 0.004	0.643 ± 0.004	0.237 ± 0.004	0.059 ± 0.004	12.992 ± 0.079	1.97 (MAX.)	0.795 (MAX.)

DO-218AB	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	11.50 ± 0.10	16.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	$24.00+0.30/-0.10$	30.4 (MAX.)
	(inch)	0.069 ± 0.004	0.453 ± 0.002	0.630 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	$0.945+0.012/-0.004$	1.197 (MAX.)

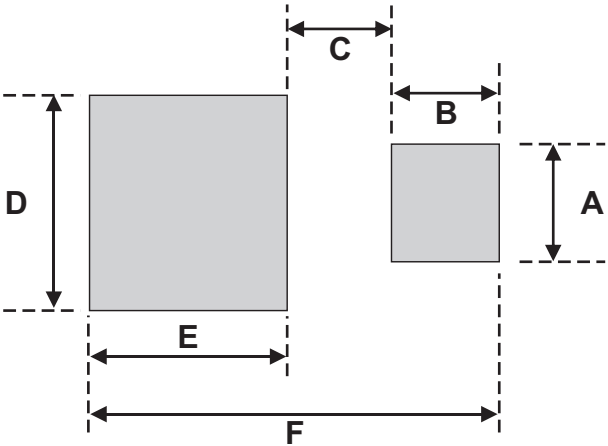
Marking Code

Part Number	Marking Code
ATV36SM524A-G	SM5Z 24A



Suggested PAD Layout

SIZE	DO-218AB	
	(mm)	(inch)
A	3.50	0.138
B	3.00	0.118
C	3.30	0.130
D	11.00	0.433
E	9.50	0.374
F	15.80	0.622



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DO-218AB	500	13