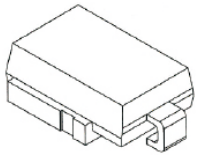
ATV36SM5-G Series

Working Voltage: 14 to 36 Volts
Peak Pulse Power: 3600 Watts
RoHS Device



Features

-Glass passivated chip.

-3600W peak pulse power capability with a 10/1000μs waveform, repetitive rate (duty cycle):0.01%

-Meets ISO7637-2 5a and ISO16750 load dump test. (Varied by test condition)

-Low leakage.

-Uni-directional polarity.

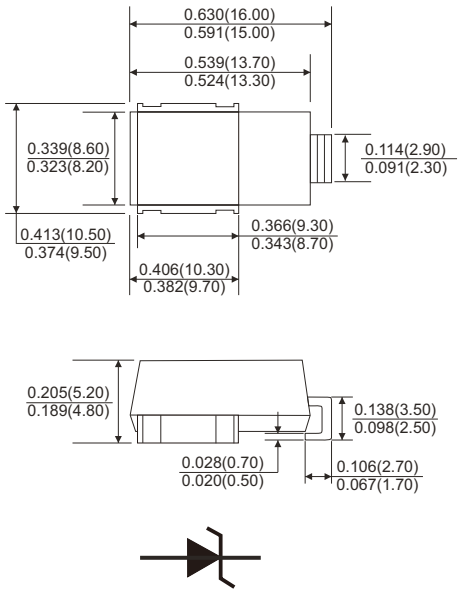
-Excellent clamping capability.

-Very fast response time.

-RoHS compliant.

-Comply with AEC-Q101

DO-218AB



Dimensions in inches and (millimeter)

Mechanical Data

-Case: DO-218AB

-Epoxy: UL 94V-0 rate flame retardant.

-Polarity: Heatsink is anode.

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 10/1000μs waveform (Note 1)	P_{PP}	3600	W
Peak pulse current with a 10/10,000μs waveform	P_{PP}	2800	W
Peak pulse current with a 10/1000μs waveform (Note 1)	I_{PP}	See Next Table	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

Rating and Characteristics Curves (ATV36SM5-G Series)

Fig.1 - Pulse Derating Curve

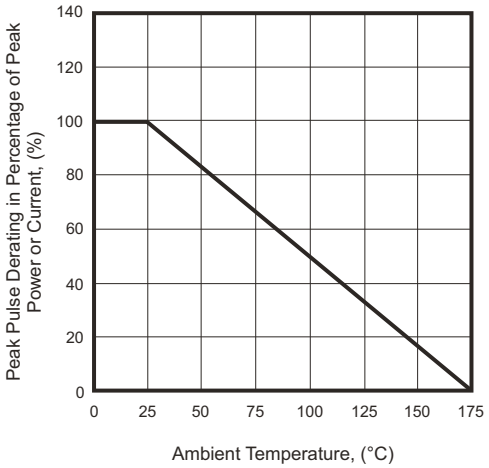


Fig.2 - Pulse Waveform

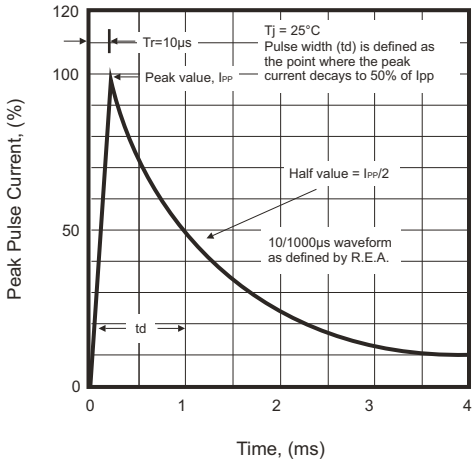


Fig.3 - Steady State Power Derating Curve

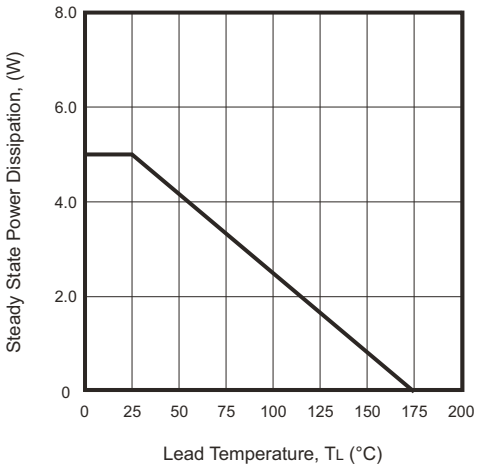
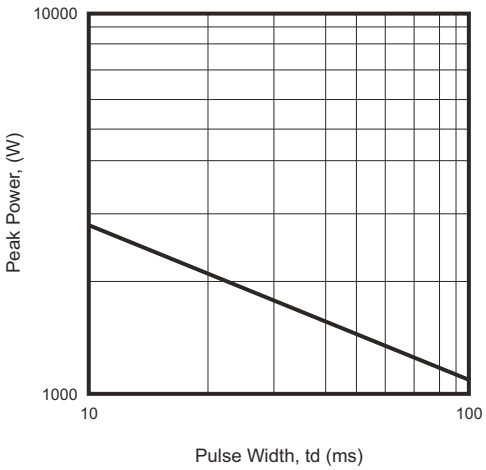


Fig.4 - Peak Pulse Power Rating Curve



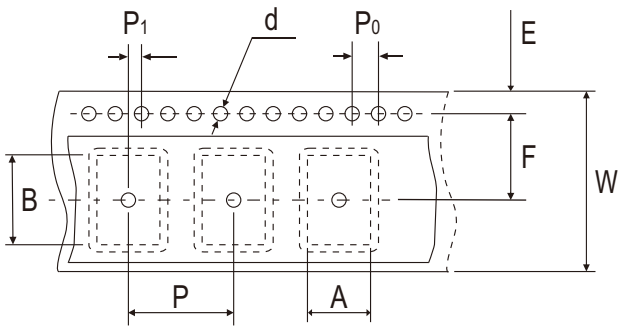
Electrical Characteristics (ATV36SM514A-G Thru. ATV36SM536A-G)

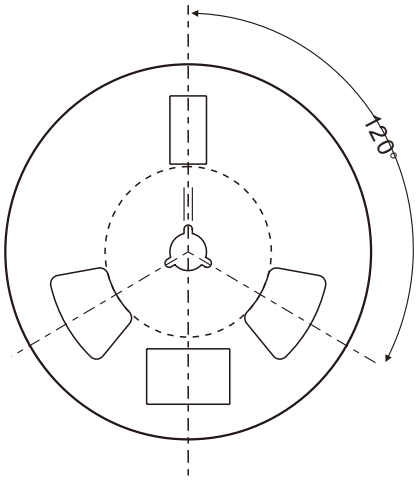
Part No.	Breakdown voltage V_{BR} @ I_T			Maximum Reverse Leakage @V_{RWM}	Maximum I_R@V_{RWM} T_J=175°C	Working Peak Reverse Voltage	Maximum Reverse Surge Current	Maximum Clamping Voltage @I_{PP}
	Min. (V)	Max. (V)	I_T (mA)	I_R (uA)	I_R (uA)	V_{RWM} (V)	I_{PP} (A) (1)	V_C (V)
ATV36SM514A-G	15.60	17.20	5	10	150	14	155.0	23.2
ATV36SM515A-G	16.70	18.50	5	10	150	15	148.0	24.4
ATV36SM516A-G	17.80	19.70	5	10	150	16	138.0	26.0
ATV36SM517A-G	18.90	20.90	5	10	150	17	130.0	27.6
ATV36SM518A-G	20.00	22.10	5	10	150	18	123.0	29.2
ATV36SM520A-G	22.20	24.50	5	10	150	20	111.0	32.4
ATV36SM522A-G	24.40	26.90	5	10	150	22	101.0	35.5
ATV36SM524A-G	26.70	29.50	5	10	150	24	93.0	38.9
ATV36SM526A-G	28.90	31.90	5	10	150	26	86.0	42.1
ATV36SM528A-G	31.10	34.40	5	10	150	28	79.0	45.4
ATV36SM530A-G	33.30	36.80	5	10	150	30	74.0	48.4
ATV36SM533A-G	36.70	40.60	5	10	150	33	68.0	53.3
ATV36SM536A-G	40.00	44.20	5	10	150	36	62.0	58.1

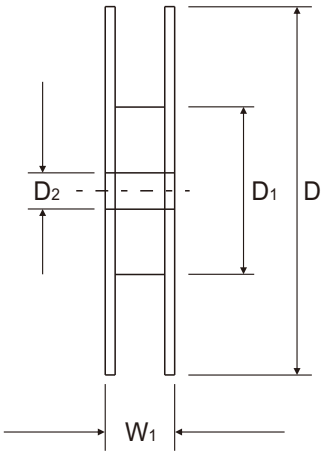
Note:

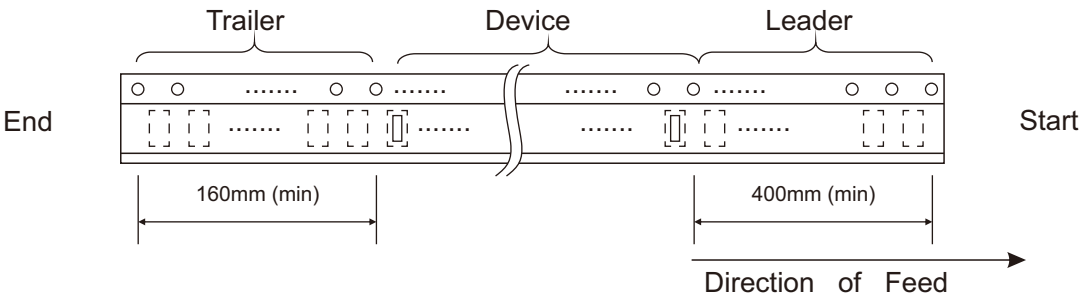
1) Surge current waveform is defined at 10/1000uS waveform.

Reel Taping Specification





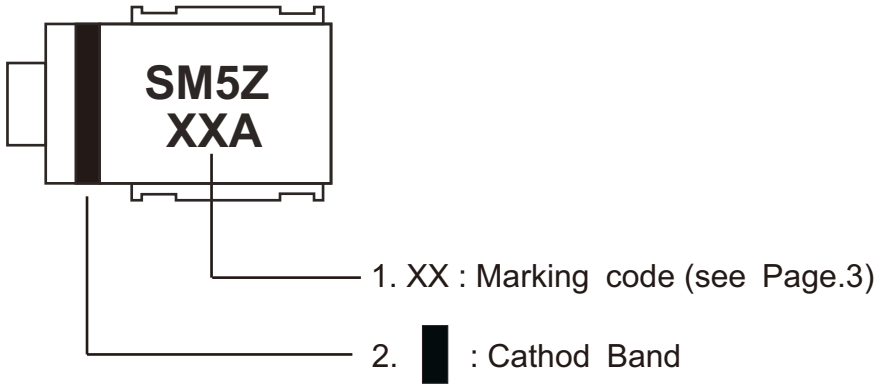




	SYMBOL	A	B	C	d	D	D_1	D_2
DO-218AB	(mm)	10.77 ± 0.10	16.33 ± 0.10	6.02 ± 0.10	1.50 + 0.10	330 ± 2.00	50.0 (MIN.)	20.2 (MIN.)
	(inch)	0.424 ± 0.004	0.643 ± 0.004	0.237 ± 0.004	0.059 + 0.004	13.00 ± 0.079	1.97 (MIN.)	0.795 (MIN.)

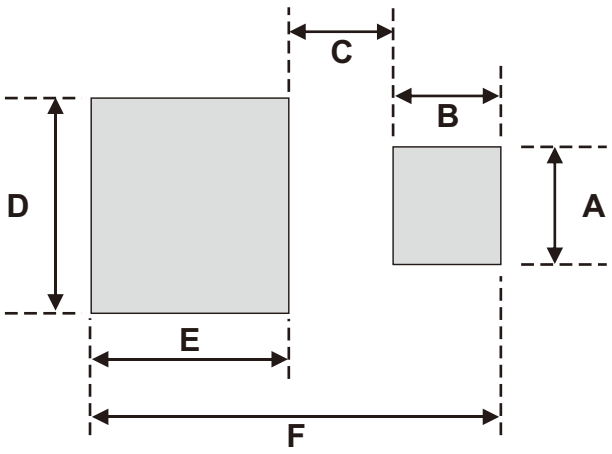
	SYMBOL	E	F	P	P_0	P_1	W	W_1
DO-218AB	(mm)	1.75 ± 0.10	11.50 ± 0.10	16.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	24.00+0.30/-0.10	30.4 (MAX.)
	(inch)	0.069 ± 0.004	0.453 ± 0.004	0.630 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.945+0.012/-0.004	1.197 (MAX.)

Marking Code



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