

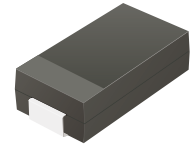
## ATV06A130-HF Thru. ATV06A400-HF

Working Peak Reverse Voltage: 13 to 40 Volts

Peak Pulse Power: 600 Watts

RoHS Device

Halogen Free

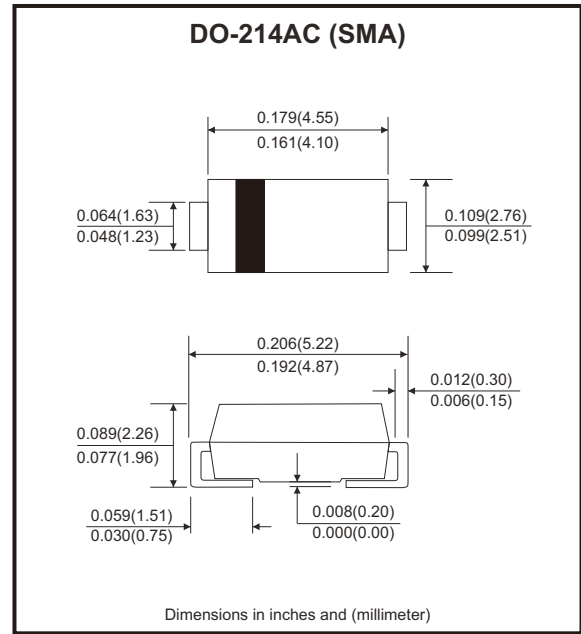


### Features

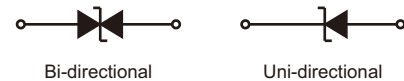
- Glass passivated chip.
- Low leakage.
- 600W peak pulse power capability with a 10/1000 $\mu$ s waveform, repetitive rate (duty cycle): 0.01%.
- Uni and Bidirectional unit.
- Excellent clamping capability.
- Very fast response time.
- AEC-Q101 Qualified

### Mechanical data

- Case: SMA/DO-214AC, molded plastic.
- Epoxy: UL 94V-0 rate flame retardant.
- Lead: Solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode end except bipolar.
- Mounting position: Any.



### Circuit Diagram



### Maximum Ratings and Electrical Characteristics

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

Characteristics	Symbol	Value	Units
Peak power dissipation with a 10/1000 $\mu$ s waveform (Note 1)	P <sub>PP</sub>	600	W
Peak pulse current with a 10/1000 $\mu$ s waveform (Note 1)	I <sub>PP</sub>	See Next Table	A
Power dissipation on infinite heatsink at T <sub>L</sub> =75°C	P <sub>D</sub>	3.0	W
Peak forward surge current, 8.3ms single half sine-wave, uni-directional only (Note 2)	I <sub>FSM</sub>	60	A
Maximum instantaneous forward voltage at 25A for uni-directional only	V <sub>F</sub>	3.5	V
Operating junction temperature range	T <sub>J</sub>	-55 to +150	°C
Storage temperature range	T <sub>STG</sub>	-55 to +150	°C

Notes: 1. Non-repetitive current pulse per Fig.5 and derated 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.

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## Rating and Characteristic Curves (ATV06A130-HF Thru. ATV06A400-HF)

Fig.1 - Pulse Derating Curve

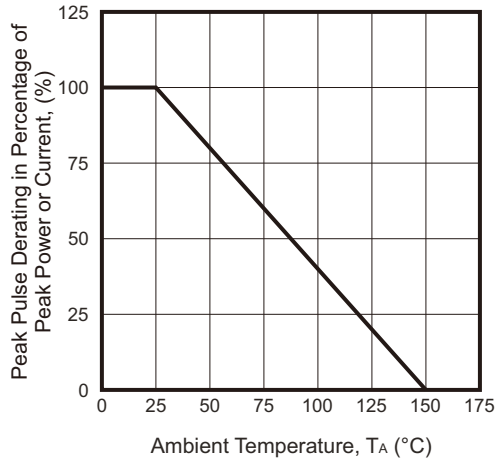


Fig.2 - Max. Non-repetitive Surge Current

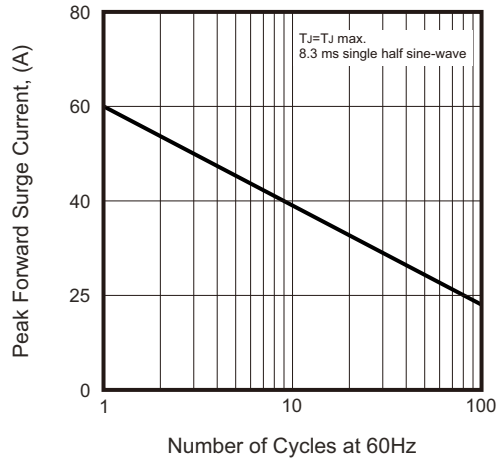


Fig.3 - Steady State Power Derating Curve

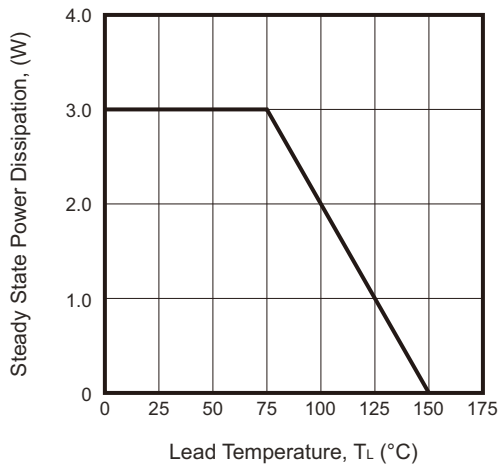


Fig.4 - Peak Pulse Power Rating Curve

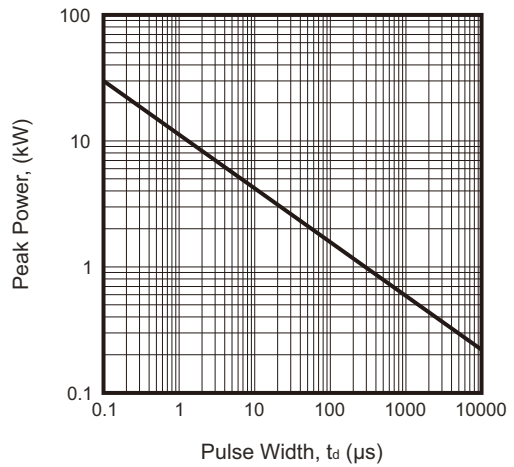


Fig.5 - Pulse Waveform

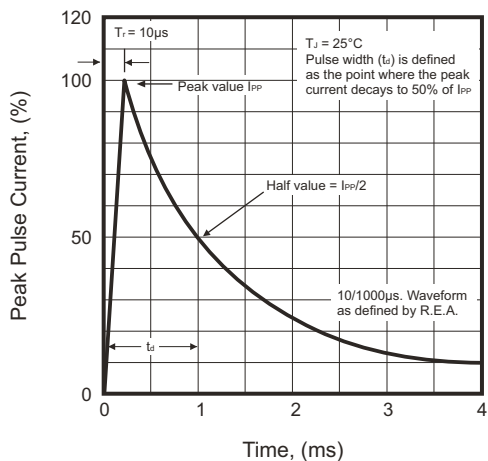
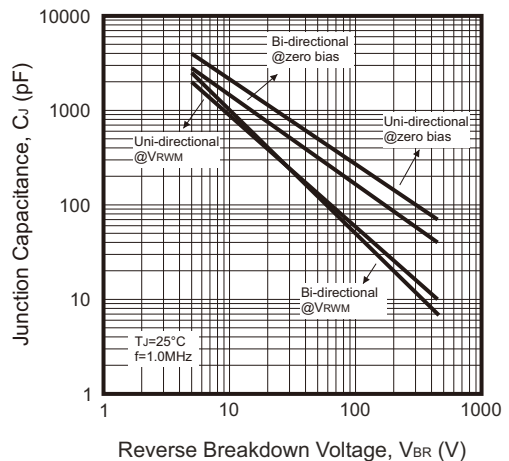


Fig.6 - Peak Pulse Power Rating Curve



# SMD Transient Voltage Suppressor

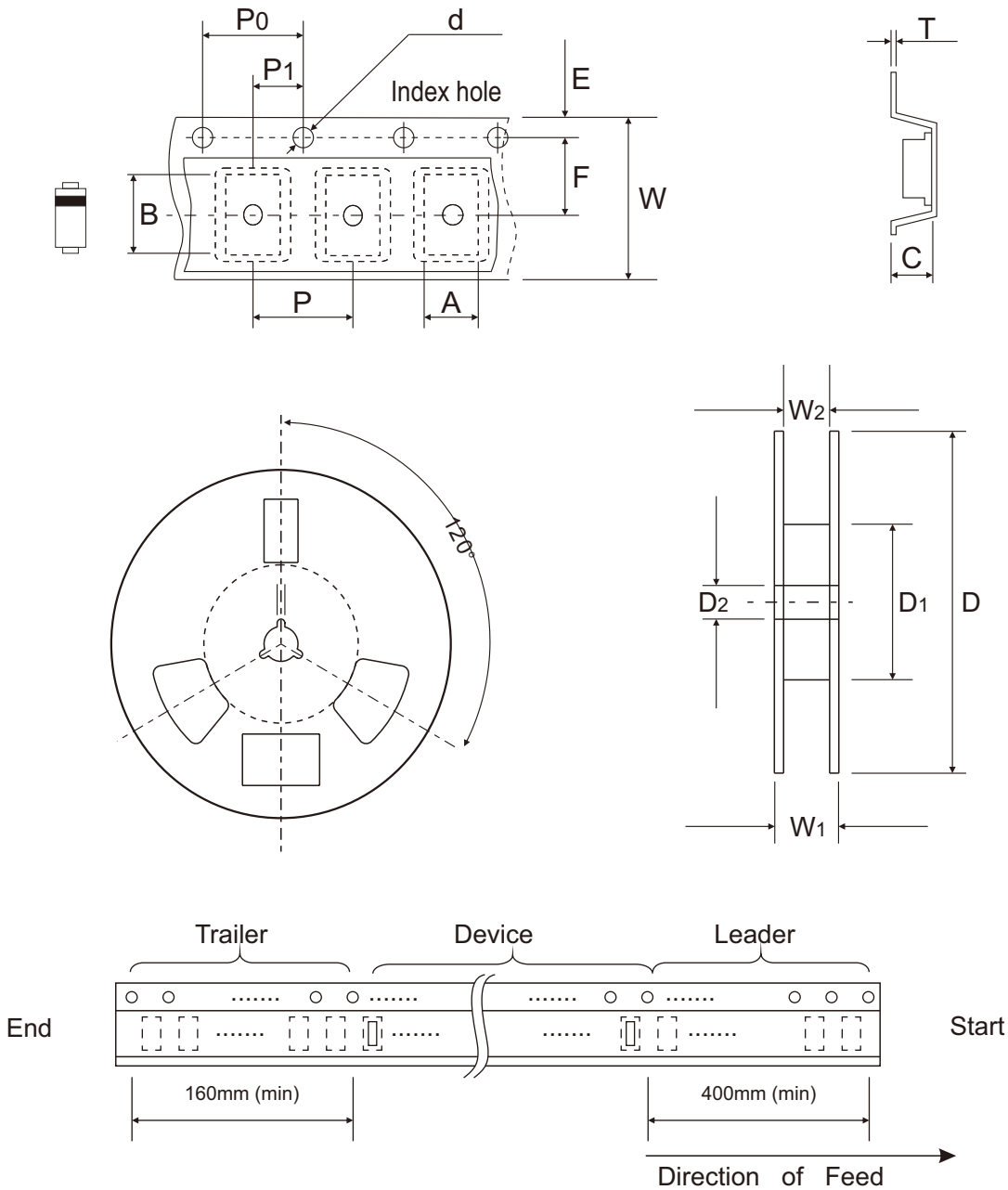


## Electrical Characteristics (ATV06A130-HF Thru. ATV06A400-HF)

Part No	Breakdown voltage $V_{BR}$ @ $I_T$			Maximum Reverse Leakage @ $V_{RWM}$	Working Peak Reverse Voltage	Maximum Reverse Surge Current	Maximum Clamping Voltage @ $I_{PP}$	Marking Code	
	$V_{BR}$ Min. (V)	$V_{BR}$ Max. (V)	$I_T$ (mA)	$I_R$ ( $\mu$ A)	$V_{RWM}$ (V)	$I_{PP}$ (A)	$V_C$ (V)	UNI	BI
ATV06A130J(B)-HF	14.40	15.90	1	1	13.0	27.9	21.5	LGA	BGA
ATV06A140J(B)-HF	15.60	17.20	1	1	14.0	25.9	23.2	LKA	BKA
ATV06A150J(B)-HF	16.70	18.50	1	1	15.0	24.6	24.4	LMA	BMA
ATV06A160J(B)-HF	17.80	19.70	1	1	16.0	23.1	26.0	LPA	BPA
ATV06A170J(B)-HF	18.90	20.90	1	1	17.0	21.7	27.6	LRA	BRA
ATV06A180J(B)-HF	20.00	22.10	1	1	18.0	20.5	29.2	LTA	BTA
ATV06A190J(B)-HF	21.10	23.30	1	1	19.0	19.5	30.8	LBA	BBA
ATV06A200J(B)-HF	22.20	24.50	1	1	20.0	18.5	32.4	LVA	BVA
ATV06A220J(B)-HF	24.40	26.90	1	1	22.0	16.9	35.5	LXA	BXA
ATV06A240J(B)-HF	26.70	29.50	1	1	24.0	15.4	38.9	LZA	BZA
ATV06A260J(B)-HF	28.90	31.90	1	1	26.0	14.3	42.1	MEA	CEA
ATV06A280J(B)-HF	31.10	34.40	1	1	28.0	13.2	45.4	MGA	CGA
ATV06A300J(B)-HF	33.30	36.80	1	1	30.0	12.4	48.4	MKA	CKA
ATV06A330J(B)-HF	36.70	40.60	1	1	33.0	11.3	53.3	MMA	CMA
ATV06A360J(B)-HF	40.00	44.20	1	1	36.0	10.3	58.1	MPA	CPA
ATV06A400J(B)-HF	44.40	49.10	1	1	40.0	9.30	64.5	MRA	CRA

Notes: 1. Suffix B after part number to specify Bi-directional devices.

## Reel Taping Specification



DO-214AC (SMA)	SYMBOL	A	B	C	d	D	D1	D2	E
	(mm)	See Note 1			1.55 ± 0.05	330.00	50.00 (Min.)	13.00 ± 0.50	1.75 ± 0.05
	(inch)	See Note 1			0.061 ± 0.002	12.992	1.969 (Min.)	0.512 ± 0.020	0.069 ± 0.002

DO-214AC (SMA)	SYMBOL	F	P	P0	P1	T	W	W1	W2
	(mm)	5.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.40 (Max.)	12.00 ± 0.10	18.40 (Max.)	14.40 (Max.)
	(inch)	0.217 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.016 (Max.)	0.472 ± 0.004	0.724 (Max.)	0.567 (Max.)

Notes: 1. A, B, and C the clearance between the component and the cavity must be within 0.5mm max. for 8mm tape and 12mm tape, 1.0mm max. for 16mm tape and 24mm tape.

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