

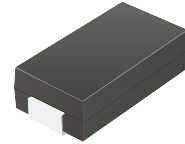
ATVJ10B280JB-HF

Reverse Voltage: 28 V

Peak Pulse Power: 1000 W

RoHS Device

Halogen Free

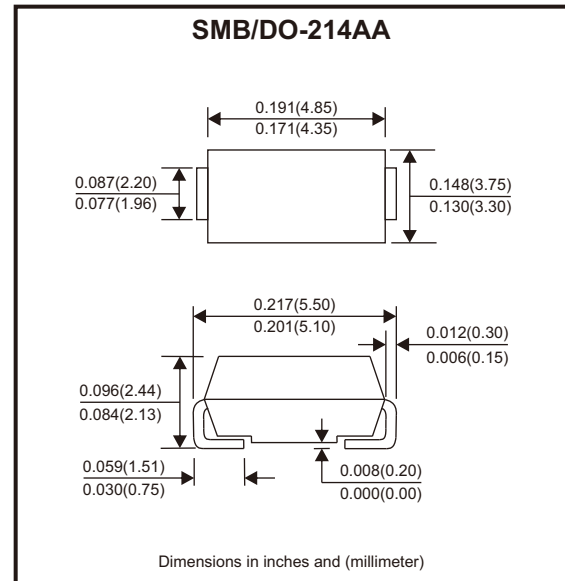


Features

- Glass passivated chip.
- Low leakage.
- Excellent clamping capability.
- Very fast response time.
- AEC-Q101 Qualified.

Mechanical Data

- Case: SMB/DO-214AA, 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

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}	1000	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 = 75°C	P _D	5	W
Peak forward surge current, 8.3ms single half sine-wave unidirectional only (Note 2)	I _{FSM}	100	A
Maximum instantaneous forward voltage at 25A for unidirectional only (Note 3)	V _F	3.5/5.0	V
Operating junction and storage temperature range	T _J , T _{STG}	-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.
3. V_F < 3.5V for devices of VBR < 50V.

SMD Transient Voltage Suppressor

Electrical Characteristics (T_A=25°C unless otherwise noted)

Part No.	Breakdown voltage V _{BR} @ I _T			Maximum Reverse Leakage @V _{RWM} I _R (μA)	Working Peak Reverse Voltage V _{RWM} (V)	Maximum Reverse Surge Current I _{PP} (A)	Maximum Clamping Voltage @I _{PP} V _C (V)	Device Marking Code
	Min. (V)	Max. (V)	I _T (mA)					BI
ATVJ10B280JB-HF	31.10	34.40	1	1.0	28.0	22.03	45.4	ACG

- Notes: 1. Suffix "J" denotes 5% tolerance device.
2. Suffix "B" after number to specify Bi-directional devices.
3. For Bi-directional devices having V_R of 10 volts and under, the I_R limit is double.

Rating and Characteristics Curves (ATVJ10B280JB-HF)

Fig.1 - Pulse Derating Curve

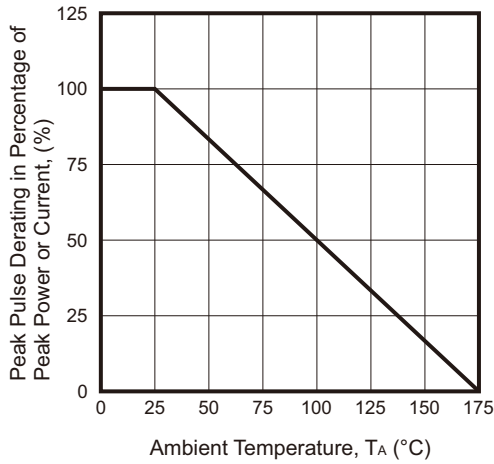


Fig.2 - Max. Non-Repetitive Surge Current

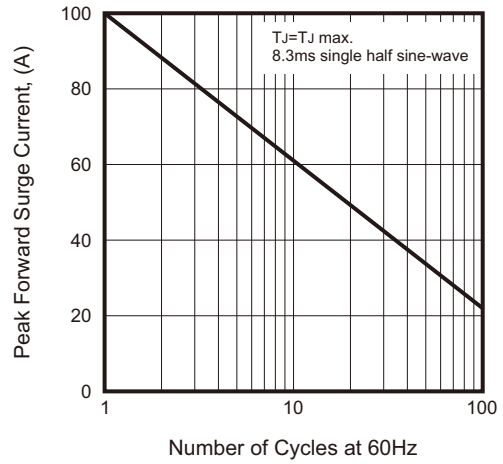


Fig.3 - Steady State Power Derating Curve

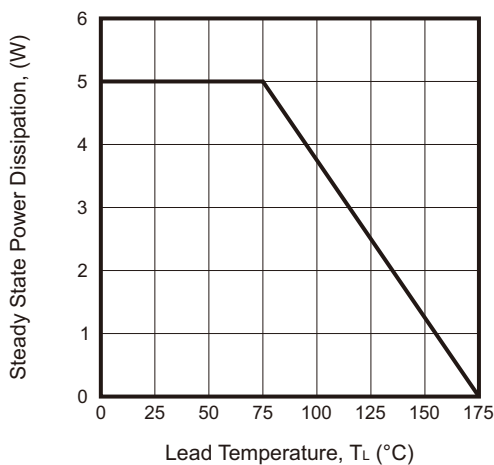


Fig.4 - Peak Pulse Power Rating Curve

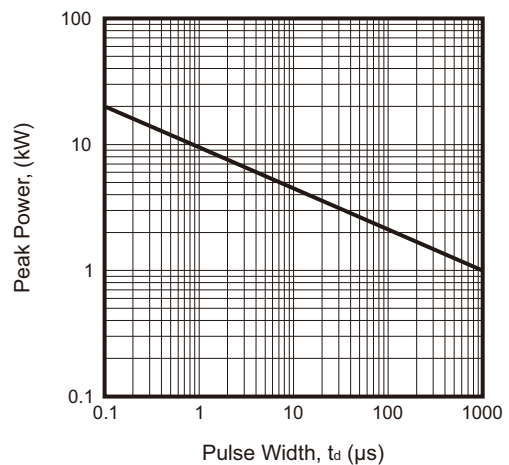


Fig.5 - Pulse Waveform

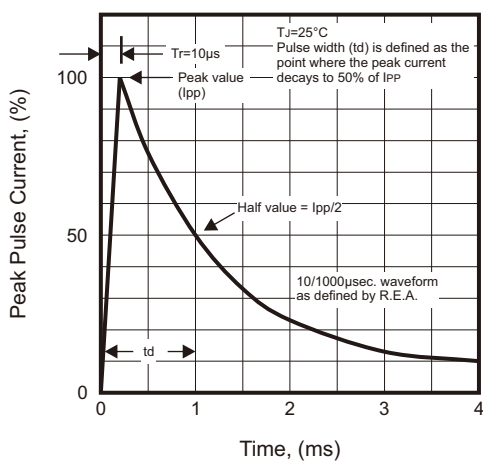
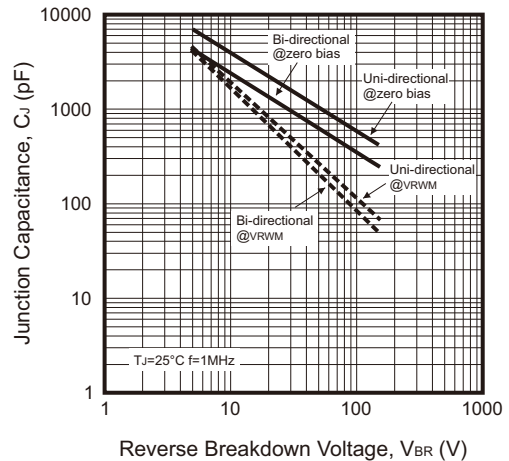
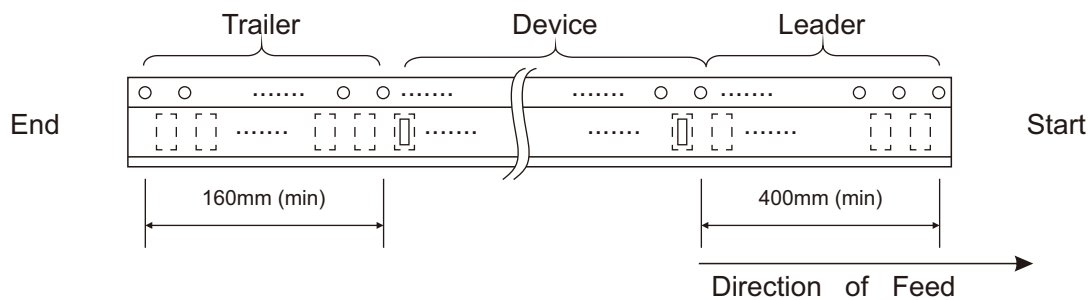
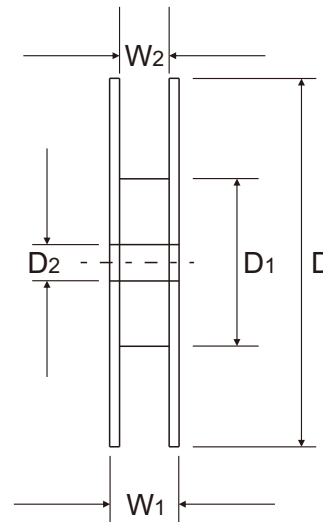
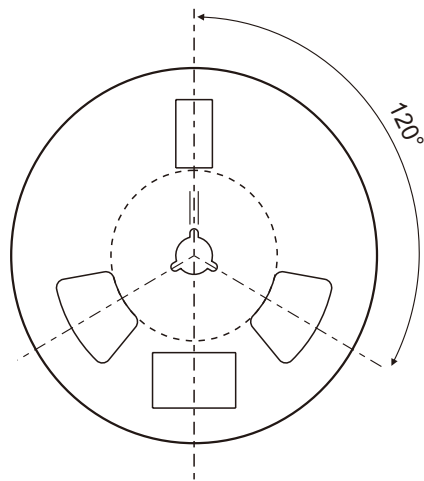
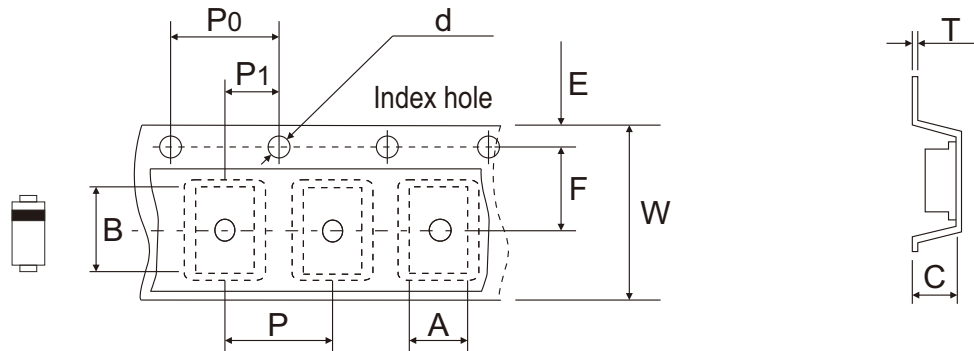


Fig.6 - Typical Junction Capacitance



Reel Taping Specification



DO-214AA (SMB)	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-214AA (SMB)	SYMBOL	F	P	P0	P1	T	W	W1	W2
	(mm)	5.50 ± 0.05	8.00 ± 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	0.315 ± 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.

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

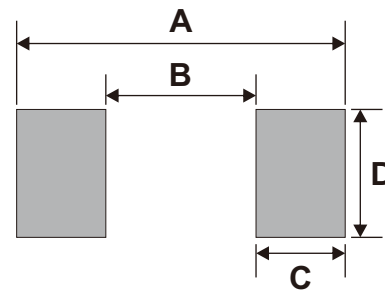
Marking Code

Part Number	Marking Code
ATVJ10B280JB-HF	ACG



Suggested P.C.B. PAD Layout

SIZE	SMB/DO-214AA	
	(mm)	(inch)
A	5.60 Ref	0.220 Ref
B	2.16 Max	0.085 Max
C	1.52 Min	0.060 Min
D	2.18 Min	0.086 Min



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DO-214AA (SMB)	3,000	13