

**Surface Mount  
Uni/Bi-Directional Automotive TVS Diodes**

**Peak Pulse Power- 3000 W  
Reverse Stand Off Voltage- 11 to 75 V**

**Description**

This 3.0SMBJ-AT automotive series is designed specifically to protect sensitive electronic equipment from voltage transients induced by lightning and other transient voltage events.

**Features**

- For surface mounted applications
- Low profile package
- 3000W Peak pulse power capability at 10/1000µs waveform
- Excellent clamping capability
- Fast response time: typically less than 1.0ps from 0 Volts to VBR min
- High temperature soldering: 260°C/10s
- Plastic package has Underwriters Laboratory Flammability 94V-0
- Halogen-Free / RoHS compliant / Matte Tin Lead-free plated
- High reliability and automotive grade (AEC-Q101 qualified)

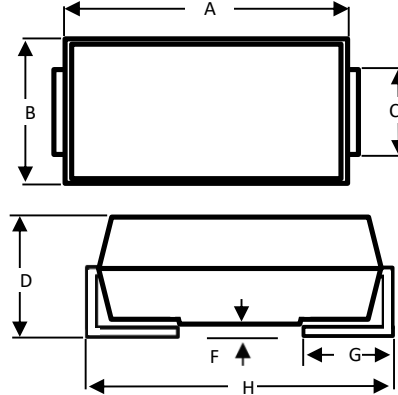
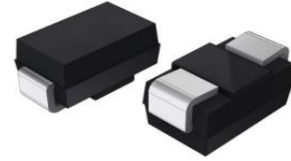
**Mechanical Data**

- Case:SMB(DO-214AA)package
- Terminal: Solderable per MIL-STD-750, Method 2026
- Case material: "green" molding compound
- Weight: 0.09 grams

**Applications**

TVS devices are ideal for the protection of I/O Interfaces,Vcc bus and other vulnerable circuits used in telecom, computer, industrial and consumer electronic applications.

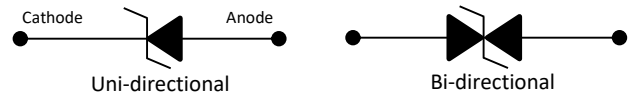
**Package Outline Dimensions**



SMB Package		
Dim	Min	Max
A	4.22	4.70
B	3.40	3.94
C	1.90	2.10
D	1.95	2.60
F	-	0.23
G	0.90	1.42
H	5.21	5.59

All Dimensions in mm

**Device Schematic**



**Ordering Information**

- Package :SMB(DO-214AA)
- Reel Size :13 (inches)
- Quantity Per Reel :3Kpcs
- Quantity Per Box :6Kpcs
- Quantity Per Carton :48Kpcs

**Maximum Ratings (@TA = +25°C, unless otherwise specified.)**

**Absolute Ratings**

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation at TA=25°C by 10/1000us Waveform (Note 1)	PPP	3000	W
Power Dissipation on Infinite Heat Sink at TL=75°C	PM(AV)	5	W
Operating Temperature Range	Tj	-55 to +150	°C
Storage Temperature Range	TSTG	-55 to +150	°C

Note:

1. Non-repetitive current pulse, per Fig.3 and derated above Tj(initial) =25°C per Fig.1

Electrical Characteristics (@T<sub>A</sub> = 25°C, unless otherwise specified.)

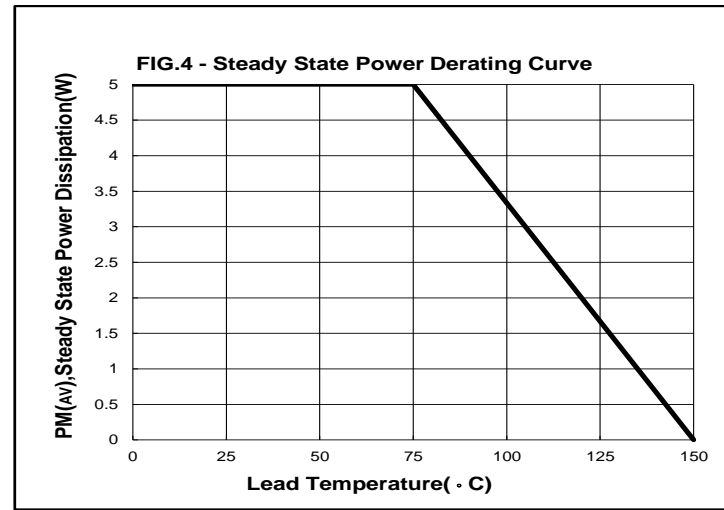
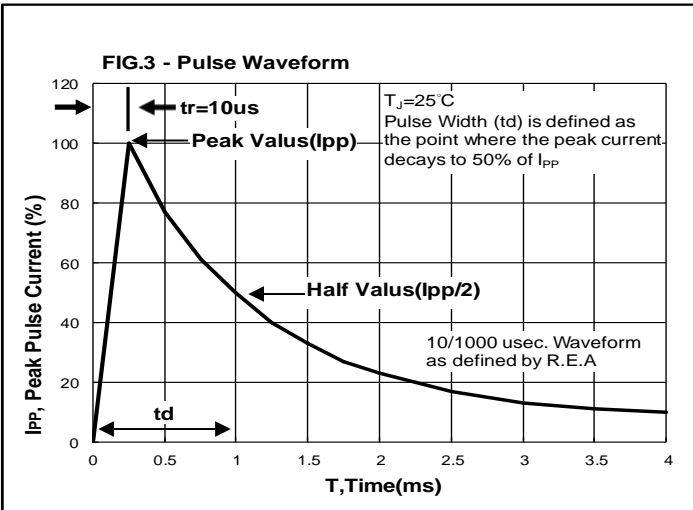
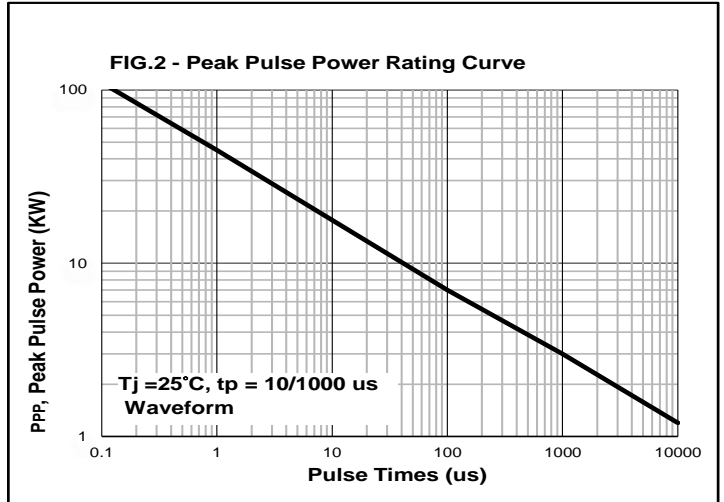
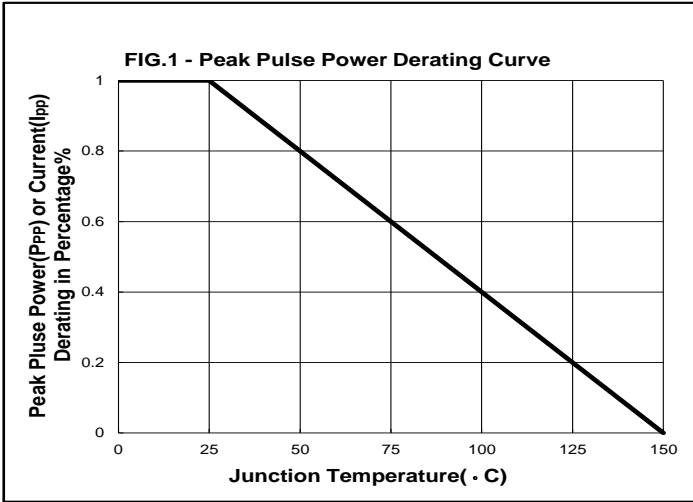
Part Number		Marking Code		Reverse Working Voltage V <sub>RWM</sub> (V)	Reverse Breakdown Voltage V <sub>B</sub> (V)			Reverse Leakage (Max) I <sub>R</sub> ( $\mu$ A) @V <sub>R</sub>	Reverse Clamping Voltage (Max) V <sub>C</sub> (V) @I <sub>PP</sub>	Peak Pulse Current (Max) I <sub>PP</sub> (A)
Uni.	Bi.	Uni.	Bi.		Min.	Max.	@I <sub>R</sub> (mA)			
3.0SMBJ11A-AT	3.0SMBJ11CA-AT	3.0SMBJ11A-AT	3.0SMBJ11CA-AT	11	12.2	13.5	1	1	18.2	164.8
3.0SMBJ12A-AT	3.0SMBJ12CA-AT	3.0SMBJ12A-AT	3.0SMBJ12CA-AT	12	13.3	14.7	1	1	19.9	150.8
3.0SMBJ13A-AT	3.0SMBJ13CA-AT	3.0SMBJ13A-AT	3.0SMBJ13CA-AT	13	14.4	15.9	1	1	21.5	139.5
3.0SMBJ14A-AT	3.0SMBJ14CA-AT	3.0SMBJ14A-AT	3.0SMBJ14CA-AT	14	15.6	17.2	1	1	23.2	129.3
3.0SMBJ15A-AT	3.0SMBJ15CA-AT	3.0SMBJ15A-AT	3.0SMBJ15CA-AT	15	16.7	18.5	1	1	24.4	123.0
3.0SMBJ16A-AT	3.0SMBJ16CA-AT	3.0SMBJ16A-AT	3.0SMBJ16CA-AT	16	17.8	19.7	1	1	26.0	115.4
3.0SMBJ17A-AT	3.0SMBJ17CA-AT	3.0SMBJ17A-AT	3.0SMBJ17CA-AT	17	18.9	20.9	1	1	27.6	108.7
3.0SMBJ18A-AT	3.0SMBJ18CA-AT	3.0SMBJ18A-AT	3.0SMBJ18CA-AT	18	20.0	22.1	1	1	29.2	102.7
3.0SMBJ20A-AT	3.0SMBJ20CA-AT	3.0SMBJ20A-AT	3.0SMBJ20CA-AT	20	22.2	24.5	1	1	32.4	92.6
3.0SMBJ22A-AT	3.0SMBJ22CA-AT	3.0SMBJ22A-AT	3.0SMBJ22CA-AT	22	24.4	26.9	1	1	35.5	84.5
3.0SMBJ24A-AT	3.0SMBJ24CA-AT	3.0SMBJ24A-AT	3.0SMBJ24CA-AT	24	26.7	29.5	1	1	38.9	77.1
3.0SMBJ26A-AT	3.0SMBJ26CA-AT	3.0SMBJ26A-AT	3.0SMBJ26CA-AT	26	28.9	31.9	1	1	42.1	71.3
3.0SMBJ28A-AT	3.0SMBJ28CA-AT	3.0SMBJ28A-AT	3.0SMBJ28CA-AT	28	31.1	34.4	1	1	45.4	66.1
3.0SMBJ30A-AT	3.0SMBJ30CA-AT	3.0SMBJ30A-AT	3.0SMBJ30CA-AT	30	33.3	36.8	1	1	48.4	62.0
3.0SMBJ33A-AT	3.0SMBJ33CA-AT	3.0SMBJ33A-AT	3.0SMBJ33CA-AT	33	36.7	40.6	1	1	53.3	56.3
3.0SMBJ36A-AT	3.0SMBJ36CA-AT	3.0SMBJ36A-AT	3.0SMBJ36CA-AT	36	40.0	44.2	1	1	58.1	51.6
3.0SMBJ40A-AT	3.0SMBJ40CA-AT	3.0SMBJ40A-AT	3.0SMBJ40CA-AT	40	44.4	49.1	1	1	64.5	46.5
3.0SMBJ43A-AT	3.0SMBJ43CA-AT	3.0SMBJ43A-AT	3.0SMBJ43CA-AT	43	47.8	52.8	1	1	69.4	43.2
3.0SMBJ45A-AT	3.0SMBJ45CA-AT	3.0SMBJ45A-AT	3.0SMBJ45CA-AT	45	50.0	55.3	1	1	72.7	41.3
3.0SMBJ48A-AT	3.0SMBJ48CA-AT	3.0SMBJ48A-AT	3.0SMBJ48CA-AT	48	53.3	58.9	1	1	77.4	38.8
3.0SMBJ51A-AT	3.0SMBJ51CA-AT	3.0SMBJ51A-AT	3.0SMBJ51CA-AT	51	56.7	62.7	1	1	82.4	36.4
3.0SMBJ54A-AT	3.0SMBJ54CA-AT	3.0SMBJ54A-AT	3.0SMBJ54CA-AT	54	60.0	66.3	1	1	87.1	34.4
3.0SMBJ58A-AT	3.0SMBJ58CA-AT	3.0SMBJ58A-AT	3.0SMBJ58CA-AT	58	64.4	71.2	1	1	93.6	32.1
3.0SMBJ60A-AT	3.0SMBJ60CA-AT	3.0SMBJ60A-AT	3.0SMBJ60CA-AT	60	66.7	73.7	1	1	96.8	31.0
3.0SMBJ64A-AT	3.0SMBJ64CA-AT	3.0SMBJ64A-AT	3.0SMBJ64CA-AT	64	71.1	78.6	1	1	103	29.1
3.0SMBJ70A-AT	3.0SMBJ70CA-AT	3.0SMBJ70A-AT	3.0SMBJ70CA-AT	70	77.8	86.0	1	1	113	26.6
3.0SMBJ75A-AT	3.0SMBJ75CA-AT	3.0SMBJ75A-AT	3.0SMBJ75CA-AT	75	83.3	92.1	1	1	121	24.8

## Note:

1. Suffix "A" denotes 5% tolerance device.
2. Add suffix "CA" after part number to specify bi-directional devices.
3. The IR limit is double for bi-directional devices.



## Rating and Characteristic Curves





## Disclaimer

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