

S-SMDJ*** CAseries

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR
VOLTAGE 6.8 TO 250 Volts, 3000 Watt Peak Pulse Power

1. FEATURES

- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications in order to optimize board space
- Low profile package
- Built-in strain relief
- Glass passivated junction
- Low inductance
- Excellent clamping capability
- Repetition Rate (duty cycle): 0.01%
- Fast response time: typically less than 1.0ps
- Typical IR less than 1uA above 10V
- High temperature soldering guaranteed:
260°C/10 seconds,
- Weight: 0.26g
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.



2. MECHANICAL DATA

Case: JEDEC DO-214AB (SMC)

Terminals: Plated leads, solderable per
MIL-STD-202, Method 208

Polarity: Without Color band denoted cathode

Mounting Position: Any

3. MAXIMUM RATINGS (Ta = 25°C)

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%.

RATING	VALUE	UNITS
Peak Power Dissipation at T _A =25°C, T _P =1ms(Note 1)	Minimum 3000	Watts
Steady State Power Dissipation at T _L =75°C(Note 2)	6.5	Watts
Operating Temperature Range	-55 to +150	°C
Storage Temperature Range	-55 to +150	°C

NOTES:

1. Non-repetitive current pulse, per Fig. 3 and derated above T_A=25°C per Fig. 2.
2. Mounted on 0.31 x 0.31" (8.0 x 8.0mm) copper pads to each terminal.

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Bi-Directional Part Number	Device marking code	Reverse Stand-off Voltage VRWM (V)	Breakdown Voltage VBR (V) Min. @IT	Breakdown Voltage VBR (V) Max. @IT	Test Current IT (mA)	Maximum Clamping Voltage @IPP VC (V)	Peak Pulse Current Ipp (A)	Reverse Leakage @VRWM IR (uA)
S-SMDJ5.0CA	SMDJ5.0CA	5.00	6.40	7.00	10.00	9.20	326.1	800
S-SMDJ6.0CA	SMDJ6.0CA	6.00	6.67	7.37	10.00	10.30	291.3	800
S-SMDJ6.5CA	SMDJ6.5CA	6.50	7.22	7.98	10.00	11.20	267.9	500
S-SMDJ7.0CA	SMDJ7.0CA	7.00	7.78	8.60	10.00	12.00	250.0	200
S-SMDJ7.5CA	SMDJ7.5CA	7.50	8.33	9.21	1.00	12.90	232.6	100
S-SMDJ8.0CA	SMDJ8.0CA	8.00	8.89	9.83	1.00	13.60	220.6	50
S-SMDJ8.5CA	SMDJ8.5CA	8.50	9.44	10.40	1.00	14.40	208.3	20
S-SMDJ9.0CA	SMDJ9.0CA	9.00	10.00	11.10	1.00	15.40	194.8	10
S-SMDJ10CA	SMDJ10CA	10.00	11.10	12.30	1.00	17.00	176.5	1
S-SMDJ11CA	SMDJ11CA	11.00	12.20	13.50	1.00	18.20	164.8	1
S-SMDJ12CA	SMDJ12CA	12.00	13.30	14.70	1.00	19.90	150.8	1
S-SMDJ13CA	SMDJ13CA	13.00	14.40	15.90	1.00	21.50	139.5	1
S-SMDJ14CA	SMDJ14CA	14.00	15.60	17.20	1.00	23.20	129.3	1
S-SMDJ15CA	SMDJ15CA	15.00	16.70	18.50	1.00	24.40	123.0	1
S-SMDJ16CA	SMDJ16CA	16.00	17.80	19.70	1.00	26.00	115.4	1
S-SMDJ17CA	SMDJ17CA	17.00	18.90	20.90	1.00	27.60	108.7	1
S-SMDJ18CA	SMDJ18CA	18.00	20.00	22.10	1.00	29.20	102.7	1
S-SMDJ20CA	SMDJ20CA	20.00	22.20	24.50	1.00	32.40	92.6	1
S-SMDJ22CA	SMDJ22CA	22.00	24.40	26.90	1.00	35.50	84.5	1
S-SMDJ24CA	SMDJ24CA	24.00	26.70	29.50	1.00	38.90	77.1	1
S-SMDJ26CA	SMDJ26CA	26.00	28.90	31.90	1.00	42.10	71.3	1
S-SMDJ28CA	SMDJ28CA	28.00	31.10	34.40	1.00	45.40	66.1	1
S-SMDJ30CA	SMDJ30CA	30.00	33.30	36.80	1.00	48.40	62.0	1
S-SMDJ33CA	SMDJ33CA	33.00	36.70	40.60	1.00	53.30	56.3	1
S-SMDJ36CA	SMDJ36CA	36.00	40.00	44.20	1.00	58.10	51.6	1
S-SMDJ40CA	SMDJ40CA	40.00	44.40	49.10	1.00	64.50	46.5	1
S-SMDJ43CA	SMDJ43CA	43.00	47.80	52.80	1.00	69.40	43.2	1
S-SMDJ45CA	SMDJ45CA	45.00	50.00	55.30	1.00	72.70	41.3	1
S-SMDJ48CA	SMDJ48CA	48.00	53.30	58.90	1.00	77.40	38.8	1
S-SMDJ51CA	SMDJ51CA	51.00	56.70	62.70	1.00	82.40	36.4	1
S-SMDJ54CA	SMDJ54CA	54.00	60.00	66.30	1.00	87.10	34.4	1
S-SMDJ58CA	SMDJ58CA	58.00	64.40	71.20	1.00	93.60	32.1	1
S-SMDJ60CA	SMDJ60CA	60.00	66.70	73.70	1.00	96.80	31.0	1
S-SMDJ64CA	SMDJ64CA	64.00	71.10	78.60	1.00	103.00	29.1	1
S-SMDJ70CA	SMDJ70CA	70.00	77.80	86.00	1.00	113.00	26.5	1
S-SMDJ75CA	SMDJ75CA	75.00	83.30	92.10	1.00	121.00	24.8	1
S-SMDJ78CA	SMDJ78CA	78.00	86.70	95.80	1.00	126.00	23.8	1
S-SMDJ85CA	SMDJ85CA	85.00	94.40	104.00	1.00	137.00	21.9	1
S-SMDJ90CA	SMDJ90CA	90.00	100.00	111.00	1.00	146.00	20.5	1
S-SMDJ100CA	SMDJ100CA	100.00	111.00	123.00	1.00	162.00	18.5	1
S-SMDJ110CA	SMDJ110CA	110.00	122.00	135.00	1.00	177.00	16.9	1
S-SMDJ120CA	SMDJ120CA	120.00	133.00	147.00	1.00	193.00	15.5	1
S-SMDJ130CA	SMDJ130CA	130.00	144.00	159.00	1.00	209.00	14.4	1
S-SMDJ150CA	SMDJ150CA	150.00	167.00	185.00	1.00	243.00	12.3	1
S-SMDJ160CA	SMDJ160CA	160.00	178.00	197.00	1.00	259.00	11.6	1
S-SMDJ170CA	SMDJ170CA	170.00	189.00	209.00	1.00	275.00	10.9	1
S-SMDJ180CA	SMDJ180CA	180.00	198.00	221.00	1.00	291.00	10.3	1
S-SMDJ190CA	SMDJ190CA	190.00	209.00	233.00	1.00	307.00	9.8	1
S-SMDJ200CA	SMDJ200CA	200.00	220.00	246.00	1.00	324.00	9.3	1
S-SMDJ220CA	SMDJ220CA	220.00	246.00	272.00	1.00	356.00	8.4	1
S-SMDJ250CA	SMDJ250CA	250.00	279.00	309.00	1.00	405.00	7.4	1

5. ELECTRICAL CHARACTERISTICS CURVES

Fig. 1-Peak Pulse Power Rating Curve

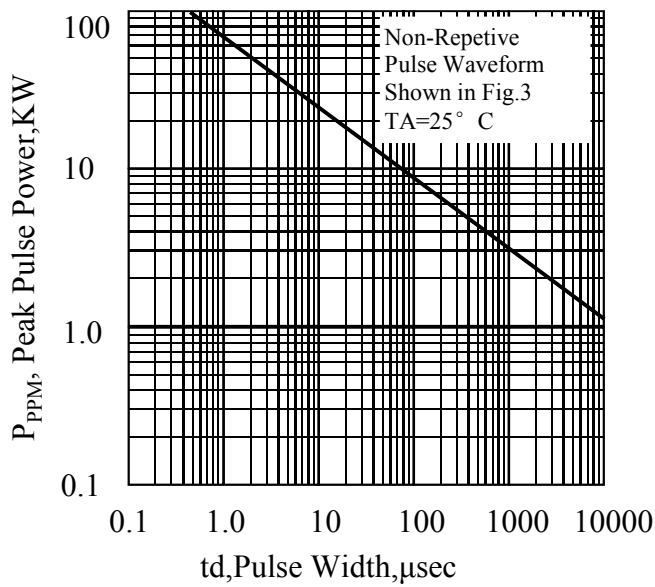


Fig. 2-Pulse Derating Curve

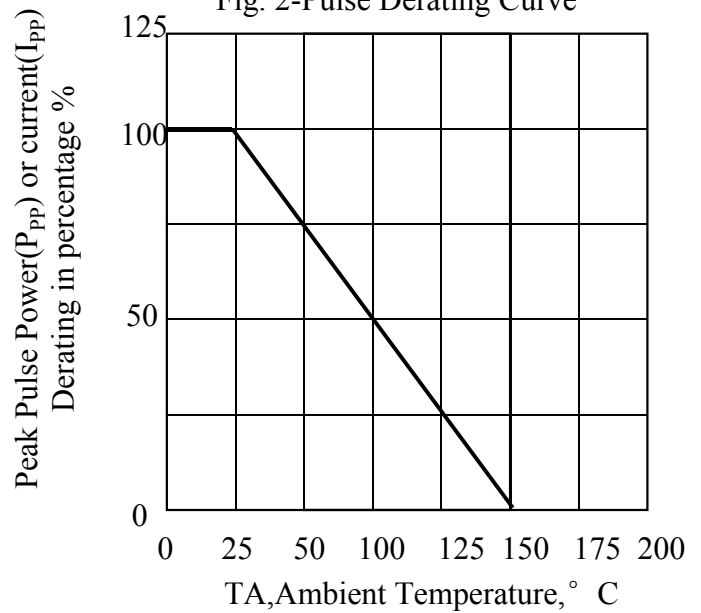


Fig. 3-Pulse Waveform

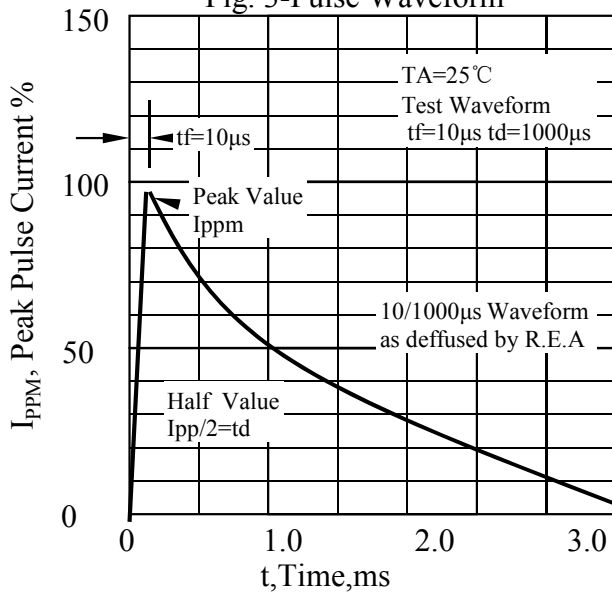
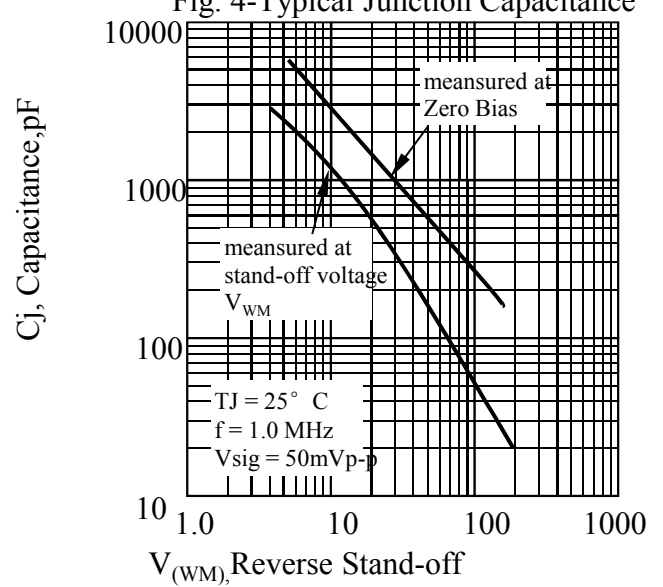
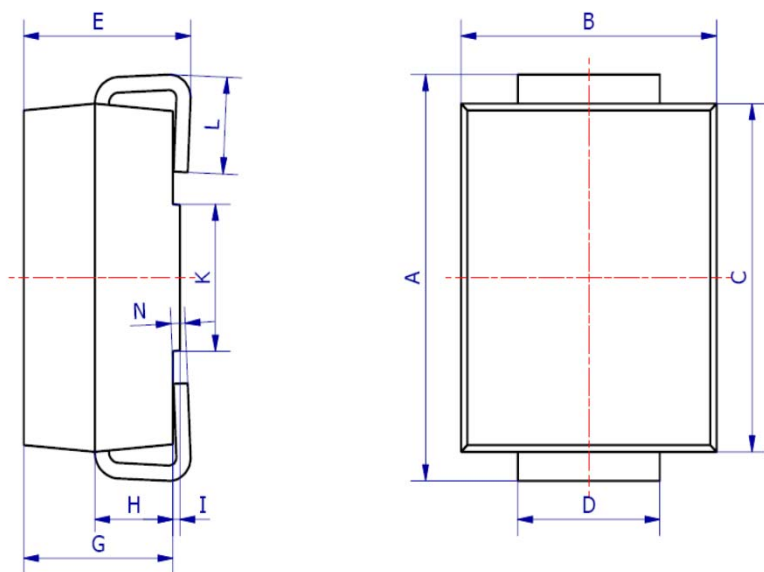


Fig. 4-Typical Junction Capacitance

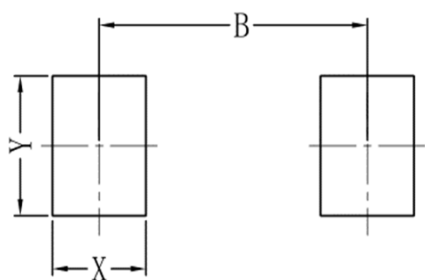


6.OUTLINE AND DIMENSIONS



SMC			
DIM	Min	Max	Typ.
A	7.70	8.30	8.00
B	5.85	6.25	6.05
C	6.65	7.05	6.85
D	2.80	3.20	3.00
E	2.45	2.85	2.65
G	2.10	2.50	2.30
H	1.00	1.40	1.20
I	0.05	0.15	0.10
K	4.30	4.70	4.50
L	1.00	1.50	1.25
N	0.10	0.30	0.20
All Dimensions in mm			

7.SOLDERING FOOTPRINT



SMC	
DIM	(mm)
X	1.60
Y	3.30
B	6.60