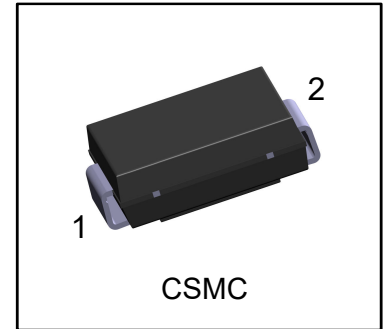


# S-CSMDJ\*\*\*CA

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR  
VOLTAGE 6.8 TO 250 V, 3000 W Peak Pulse Power

## 1. FEATURES

- 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,
- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.
- Weight: 0.28g



## 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 $T_A=25^\circ\text{C}$ , $T_P=1\text{ms}$ (Note 1)	Minimum 3000	W
Steady State Power Dissipation at $T_L=75^\circ\text{C}$ (Note 2)	6.5	W
Operating Temperature Range	-55 to +150	°C
Storage Temperature Range	-55 to +175	°C

NOTES:

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

## S-CSMDJ\*\*\*CA

Bi-Directional Part Number	Device Marking	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-CSMDJ5.0CA	SMDJ5.0CA	5	6.4	7	10	9.2	326.1	800
S-CSMDJ6.0CA	SMDJ6.0CA	6	6.67	7.37	10	10.3	291.3	800
S-CSMDJ6.5CA	SMDJ6.5CA	6.5	7.22	7.98	10	11.2	267.9	500
S-CSMDJ7.0CA	SMDJ7.0CA	7	7.78	8.6	10	12	250	200
S-CSMDJ7.5CA	SMDJ7.5CA	7.5	8.33	9.21	1	12.9	232.6	100
S-CSMDJ8.0CA	SMDJ8.0CA	8	8.89	9.83	1	13.6	220.6	50
S-CSMDJ8.5CA	SMDJ8.5CA	8.5	9.44	10.4	1	14.4	208.3	20
S-CSMDJ9.0CA	SMDJ9.0CA	9	10	11.1	1	15.4	194.8	10
S-CSMDJ10CA	SMDJ10CA	10	11.1	12.3	1	17	176.5	5
S-CSMDJ11CA	SMDJ11CA	11	12.2	13.5	1	18.2	164.8	2
S-CSMDJ12CA	SMDJ12CA	12	13.3	14.7	1	19.9	150.8	1
S-CSMDJ13CA	SMDJ13CA	13	14.4	15.9	1	21.5	139.5	1
S-CSMDJ14CA	SMDJ14CA	14	15.6	17.2	1	23.2	129.3	1
S-CSMDJ15CA	SMDJ15CA	15	16.7	18.5	1	24.4	123	1
S-CSMDJ16CA	SMDJ16CA	16	17.8	19.7	1	26	115.4	1
S-CSMDJ17CA	SMDJ17CA	17	18.9	20.9	1	27.6	108.7	1
S-CSMDJ18CA	SMDJ18CA	18	20	22.1	1	29.2	102.7	1
S-CSMDJ20CA	SMDJ20CA	20	22.2	24.5	1	32.4	92.6	1
S-CSMDJ22CA	SMDJ22CA	22	24.4	26.9	1	35.5	84.5	1
S-CSMDJ24CA	SMDJ24CA	24	26.7	29.5	1	38.9	77.1	1
S-CSMDJ26CA	SMDJ26CA	26	28.9	31.9	1	42.1	71.3	1
S-CSMDJ28CA	SMDJ28CA	28	31.1	34.4	1	45.4	66.1	1
S-CSMDJ30CA	SMDJ30CA	30	33.3	36.8	1	48.4	62	1
S-CSMDJ33CA	SMDJ33CA	33	36.7	40.6	1	53.3	56.3	1
S-CSMDJ36CA	SMDJ36CA	36	40	44.2	1	58.1	51.6	1
S-CSMDJ40CA	SMDJ40CA	40	44.4	49.1	1	64.5	46.5	1
S-CSMDJ43CA	SMDJ43CA	43	47.8	52.8	1	69.4	43.2	1
S-CSMDJ45CA	SMDJ45CA	45	50	55.3	1	72.7	41.3	1
S-CSMDJ48CA	SMDJ48CA	48	53.3	58.9	1	77.4	38.8	1
S-CSMDJ51CA	SMDJ51CA	51	56.7	62.7	1	82.4	36.4	1
S-CSMDJ54CA	SMDJ54CA	54	60	66.3	1	87.1	34.4	1
S-CSMDJ58CA	SMDJ58CA	58	64.4	71.2	1	93.6	32.1	1
S-CSMDJ60CA	SMDJ60CA	60	66.7	73.7	1	96.8	31	1
S-CSMDJ64CA	SMDJ64CA	64	71.1	78.6	1	103	29.1	1
S-CSMDJ70CA	SMDJ70CA	70	77.8	86	1	113	26.5	1
S-CSMDJ75CA	SMDJ75CA	75	83.3	92.1	1	121	24.8	1
S-CSMDJ78CA	SMDJ78CA	78	86.7	95.8	1	126	23.8	1
S-CSMDJ85CA	SMDJ85CA	85	94.4	104	1	137	21.9	1
S-CSMDJ90CA	SMDJ90CA	90	100	111	1	146	20.5	1
S-CSMDJ100CA	SMDJ100CA	100	111	123	1	162	18.5	1
S-CSMDJ110CA	SMDJ110CA	110	122	135	1	177	16.9	1
S-CSMDJ120CA	SMDJ120CA	120	133	147	1	193	15.5	1
S-CSMDJ130CA	SMDJ130CA	130	144	159	1	209	14.4	1
S-CSMDJ150CA	SMDJ150CA	150	167	185	1	243	12.3	1
S-CSMDJ160CA	SMDJ160CA	160	178	197	1	259	11.6	1
S-CSMDJ170CA	SMDJ170CA	170	189	209	1	275	10.9	1
S-CSMDJ180CA	SMDJ180CA	180	198	221	1	291	10.3	1
S-CSMDJ190CA	SMDJ190CA	190	209	233	1	307	9.8	1
S-CSMDJ200CA	SMDJ200CA	200	220	246	1	324	9.3	1
S-CSMDJ220CA	SMDJ220CA	220	246	272	1	356	8.4	1
S-CSMDJ250CA	SMDJ250CA	250	279	309	1	405	7.4	1

### 5. ELECTRICAL CHARACTERISTICS CURVES

Fig. 1-Peak Pulse Power Rating Curve

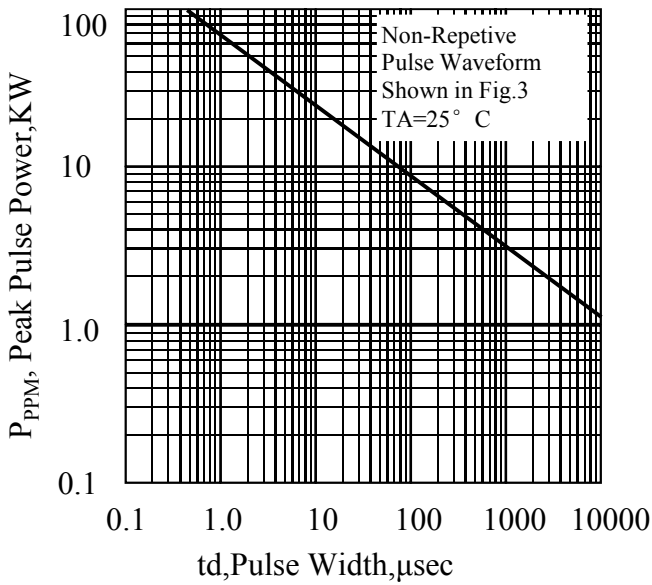


Fig. 2-Pulse Derating Curve

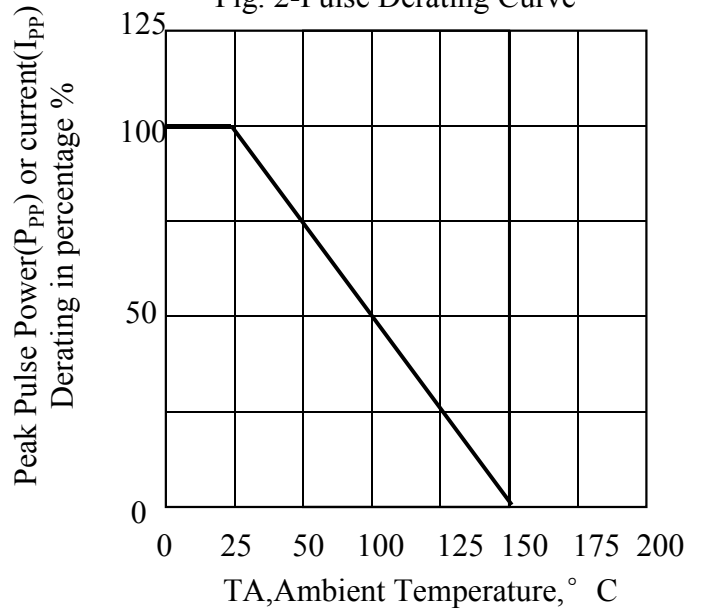


Fig. 3-Pulse Waveform

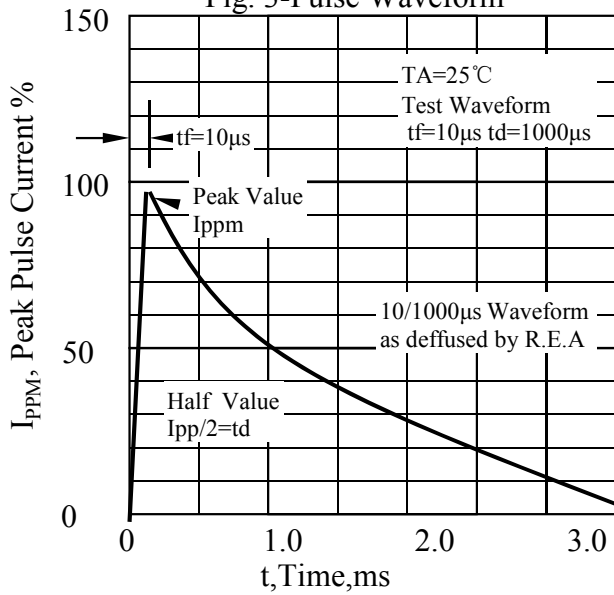
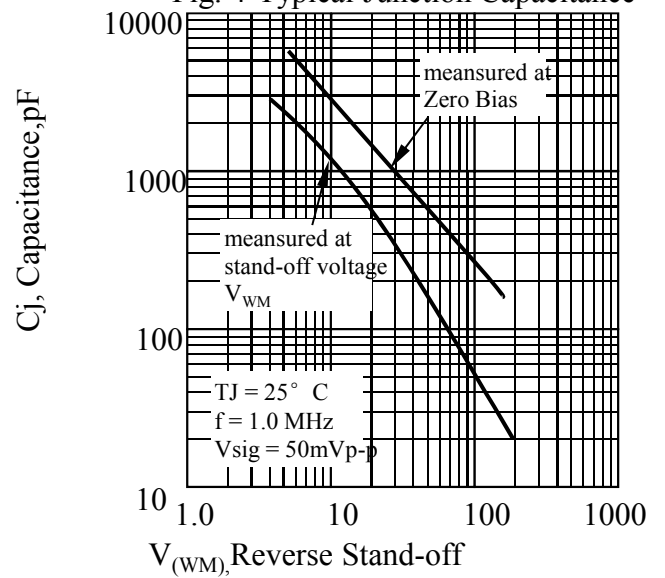
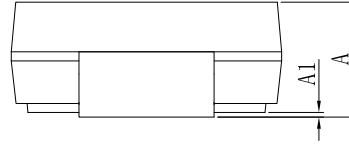
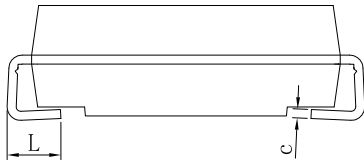


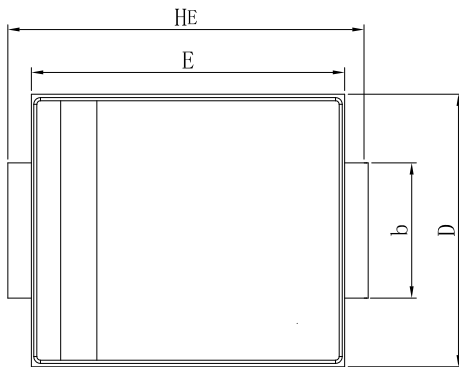
Fig. 4-Typical Junction Capacitance



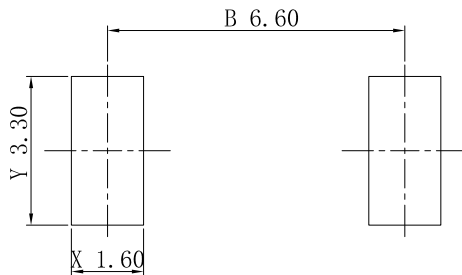
## 6. OUTLINE AND DIMENSIONS



CSMC			
DIM	MIN	TYP	MAX
A	2.25	2.45	2.65
A1	0.05	0.10	0.20
b	2.80	3.00	3.20
c	0.10	0.20	0.30
D	5.85	6.05	6.25
E	6.65	6.95	7.11
HE	7.70	8.00	8.30
L	0.76	1.20	1.52
All Dimensions in mm			



## 7. SOLDERING FOOTPRINT



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