

1.5SMC*** CA Series

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

VOLTAGE 6.8 TO 250 Volts, 1500 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



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(T_a = 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)	Minimum1500	Watts
Steady State Power Dissipation at T _L =75°C(Note 2)	5.0	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)
1.5SMC6.8CA	1.5SMC6.8CA	5.8	6.45	7.14	10	10.5	142.9	1000
1.5SMC7.5CA	1.5SMC7.5CA	6.4	7.13	7.88	10	11.3	132.7	500
1.5SMC8.2CA	1.5SMC8.2CA	7.02	7.79	8.61	10	12.1	124.0	200
1.5SMC9.1CA	1.5SMC9.1CA	7.78	8.65	9.5	1	13.4	111.9	50
1.5SMC10CA	1.5SMC10CA	8.55	9.5	10.5	1	14.5	103.4	10
1.5SMC11CA	1.5SMC11CA	9.4	10.5	11.6	1	15.6	96.2	1
1.5SMC12CA	1.5SMC12CA	10.2	11.4	12.6	1	16.7	89.8	1
1.5SMC13CA	1.5SMC13CA	11.1	12.4	13.7	1	18.2	82.4	1
1.5SMC15CA	1.5SMC15CA	12.8	14.3	15.8	1	21.2	70.8	1
1.5SMC16CA	1.5SMC16CA	13.6	15.2	16.8	1	22.5	66.7	1
1.5SMC18CA	1.5SMC18CA	15.3	17.1	18.9	1	25.2	59.5	1
1.5SMC20CA	1.5SMC20CA	17.1	19	21	1	27.7	54.2	1
1.5SMC22CA	1.5SMC22CA	18.8	20.9	23.1	1	30.6	49.0	1
1.5SMC24CA	1.5SMC24CA	20.5	22.8	25.2	1	33.2	45.2	1
1.5SMC27CA	1.5SMC27CA	23.1	25.7	28.4	1	37.5	40.0	1
1.5SMC30CA	1.5SMC30CA	25.6	28.5	31.5	1	41.4	36.2	1
1.5SMC33CA	1.5SMC33CA	28.2	31.4	34.7	1	45.7	32.8	1
1.5SMC36CA	1.5SMC36CA	30.8	34.2	37.8	1	49.9	30.1	1
1.5SMC39CA	1.5SMC39CA	33.3	37.1	41	1	53.9	27.8	1
1.5SMC43CA	1.5SMC43CA	36.8	40.9	45.2	1	59.3	25.3	1
1.5SMC47CA	1.5SMC47CA	40.2	44.7	49.4	1	64.8	23.1	1
1.5SMC51CA	1.5SMC51CA	43.6	48.5	53.6	1	70.1	21.4	1
1.5SMC56CA	1.5SMC56CA	47.8	53.2	58.8	1	77	19.5	1
1.5SMC62CA	1.5SMC62CA	53	58.9	65.1	1	85	17.6	1
1.5SMC68CA	1.5SMC68CA	58.1	64.6	71.4	1	92	16.3	1
1.5SMC75CA	1.5SMC75CA	64.1	71.3	78.8	1	103	14.6	1
1.5SMC82CA	1.5SMC82CA	70.1	77.9	86.1	1	113	13.3	1
1.5SMC91CA	1.5SMC91CA	77.8	86.5	95.5	1	125	12.0	1
1.5SMC100CA	1.5SMC100CA	85.5	95	105	1	137	10.9	1
1.5SMC110CA	1.5SMC110CA	94	105	116	1	152	9.9	1
1.5SMC120CA	1.5SMC120CA	102	114	126	1	165	9.1	1
1.5SMC130CA	1.5SMC130CA	111	124	137	1	179	8.4	1
1.5SMC150CA	1.5SMC150CA	128	143	158	1	207	7.2	1
1.5SMC160CA	1.5SMC160CA	136	152	168	1	219	6.8	1
1.5SMC170CA	1.5SMC170CA	145	162	179	1	234	6.4	1
1.5SMC180CA	1.5SMC180CA	154	171	189	1	246	6.1	1
1.5SMC200CA	1.5SMC200CA	171	190	210	1	274	5.5	1
1.5SMC220CA	1.5SMC220CA	185	209	231	1	328	4.6	1
1.5SMC250CA	1.5SMC250CA	214	237	263	1	344	4.4	1

5. ELECTRICAL CHARACTERISTICS CURVES

Fig. 1-Peak Pulse Power Rating Curve

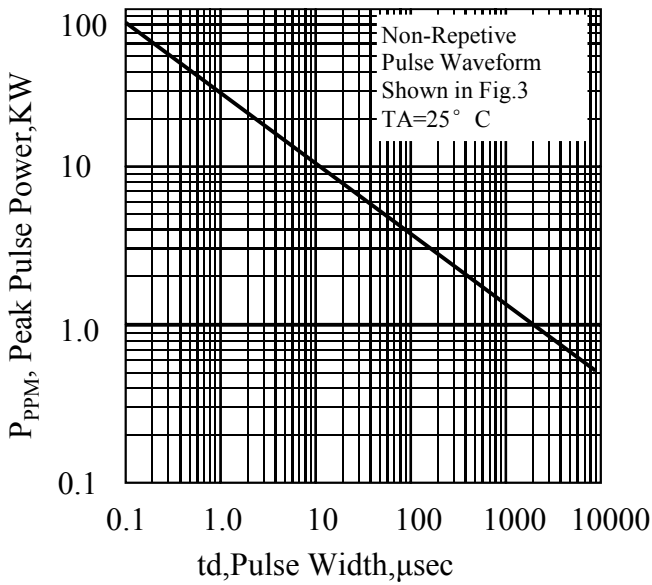


Fig. 2-Pulse Derating Curve

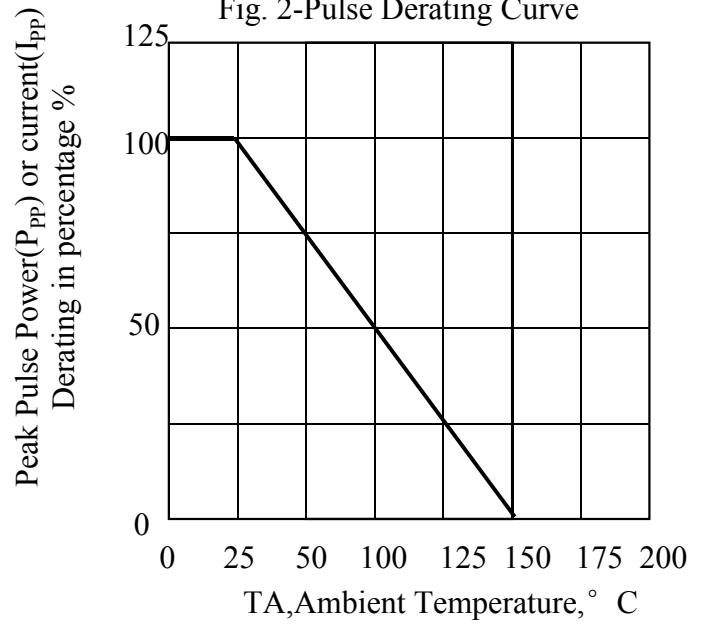


Fig. 3-Pulse Waveform

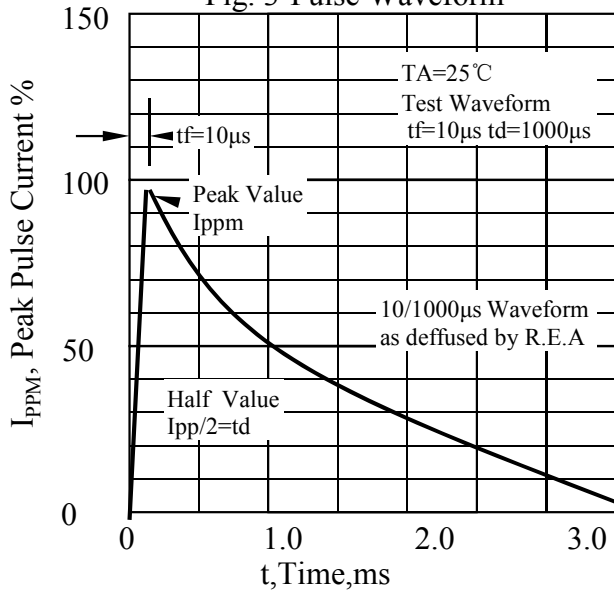
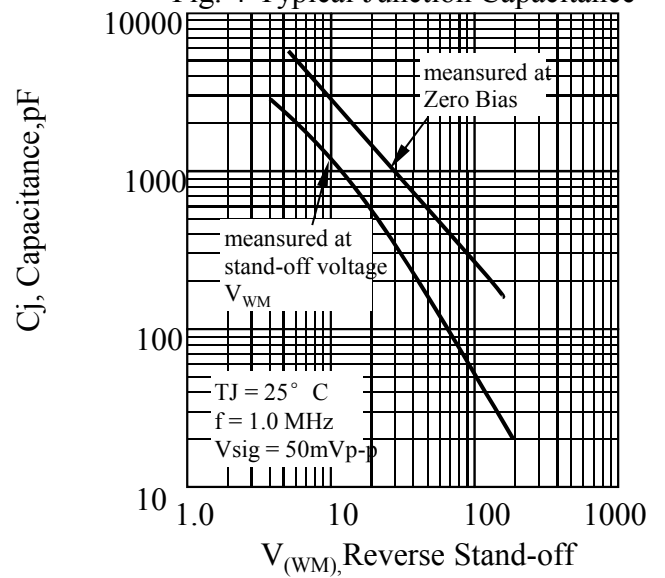
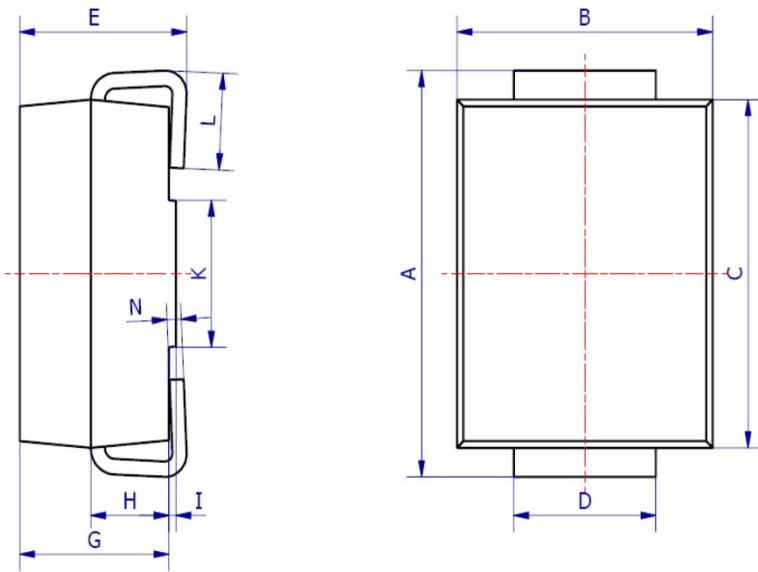


Fig. 4-Typical Junction Capacitance

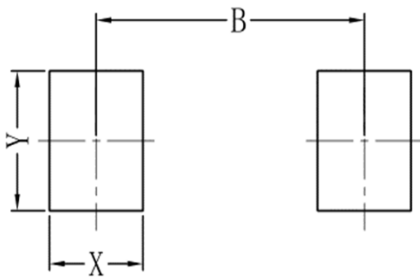


6. OUTLINE AND DIMENSIONS



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

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