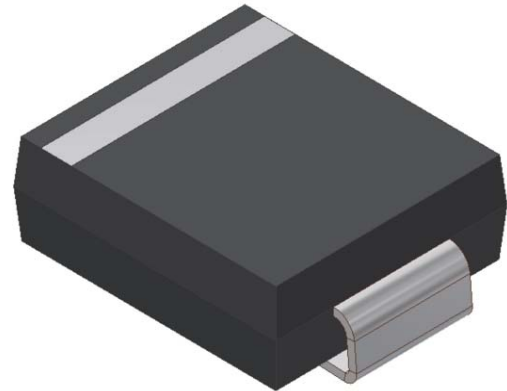


SMCJ*** A Series

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR
VOLTAGE 5 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
- 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: With 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	Symbol	VALUE	UNITS
Peak Power Dissipation at T _A =25°C, T _P =1ms(Note 1)	P _{PPM}	Minimum 1500	Watts
Steady State Power Dissipation at T _L =75°C(Note 2)	P _{M(AV)}	6.5	Watts
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load, (JEDEC Method)(Note 3)	I _{FSM}	200	A
Typical thermal resistance (Note 2)	R _{θJA}	80	°C/W
	R _{θJC}	20	
Operating Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-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.
3. 8.3ms single half sine-wave, duty cycle= 4 pulses per minu

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Uni- 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)
SMCJ5.0A	SMCJ5.0A	5.00	6.40	7.07	10.0	9.20	163.0	1000
SMCJ6.0A	SMCJ6.0A	6.00	6.67	7.37	10.0	10.30	145.6	1000
SMCJ6.5A	SMCJ6.5A	6.50	7.22	7.98	10.0	11.20	133.9	500
SMCJ7.0A	SMCJ7.0A	7.00	7.78	8.60	10.0	12.00	125.0	200
SMCJ7.5A	SMCJ7.5A	7.50	8.33	9.21	1.0	12.90	116.3	100
SMCJ8.0A	SMCJ8.0A	8.00	8.89	9.83	1.0	13.60	110.3	50
SMCJ8.5A	SMCJ8.5A	8.50	9.44	10.40	1.0	14.40	104.2	20
SMCJ9.0A	SMCJ9.0A	9.00	10.00	11.10	1.0	15.40	97.4	10
SMCJ10A	SMCJ10A	10.00	11.10	12.30	1.0	17.00	88.2	5
SMCJ11A	SMCJ11A	11.00	12.20	13.50	1.0	18.20	82.4	5
SMCJ12A	SMCJ12A	12.00	13.30	14.70	1.0	19.90	75.4	5
SMCJ13A	SMCJ13A	13.00	14.40	15.90	1.0	21.50	69.8	1
SMCJ14A	SMCJ14A	14.00	15.60	17.20	1.0	23.20	64.7	1
SMCJ15A	SMCJ15A	15.00	16.70	18.50	1.0	24.40	61.5	1
SMCJ16A	SMCJ16A	16.00	17.80	19.70	1.0	26.00	57.7	1
SMCJ17A	SMCJ17A	17.00	18.90	20.90	1.0	27.60	54.3	1
SMCJ18A	SMCJ18A	18.00	20.00	22.10	1.0	29.20	51.4	1
SMCJ20A	SMCJ20A	20.00	22.20	24.50	1.0	32.40	46.3	1
SMCJ22A	SMCJ22A	22.00	24.40	26.90	1.0	35.50	42.3	1
SMCJ24A	SMCJ24A	24.00	26.70	29.50	1.0	38.90	38.6	1
SMCJ26A	SMCJ26A	26.00	28.90	31.90	1.0	42.10	35.6	1
SMCJ28A	SMCJ28A	28.00	31.10	34.40	1.0	45.40	33.0	1
SMCJ30A	SMCJ30A	30.00	33.30	36.80	1.0	48.40	31.0	1
SMCJ33A	SMCJ33A	33.00	36.70	40.60	1.0	53.30	28.1	1
SMCJ36A	SMCJ36A	36.00	40.00	44.20	1.0	58.10	25.8	1
SMCJ40A	SMCJ40A	40.00	44.40	49.10	1.0	64.50	23.3	1
SMCJ43A	SMCJ43A	43.00	47.80	52.80	1.0	69.40	21.6	1
SMCJ45A	SMCJ45A	45.00	50.00	55.30	1.0	72.70	20.6	1
SMCJ48A	SMCJ48A	48.00	53.30	58.90	1.0	77.40	19.4	1
SMCJ51A	SMCJ51A	51.00	56.70	62.70	1.0	82.40	18.2	1
SMCJ54A	SMCJ54A	54.00	60.00	66.30	1.0	87.10	17.2	1
SMCJ58A	SMCJ58A	58.00	64.40	71.20	1.0	93.60	16.0	1
SMCJ60A	SMCJ60A	60.00	66.70	73.70	1.0	96.80	15.5	1
SMCJ64A	SMCJ64A	64.00	71.10	78.60	1.0	103.00	14.6	1
SMCJ70A	SMCJ70A	70.00	77.80	86.00	1.0	113.00	13.3	1
SMCJ75A	SMCJ75A	75.00	83.30	92.10	1.0	121.00	12.4	1
SMCJ78A	SMCJ78A	78.00	86.70	95.80	1.0	126.00	11.9	1
SMCJ85A	SMCJ85A	85.00	94.40	104.00	1.0	137.00	10.9	1
SMCJ90A	SMCJ90A	90.00	100.00	111.00	1.0	146.00	10.3	1
SMCJ100A	SMCJ100A	100.00	111.00	123.00	1.0	162.00	9.3	1
SMCJ110A	SMCJ110A	110.00	122.00	135.00	1.0	177.00	8.5	1
SMCJ120A	SMCJ120A	120.00	133.00	147.00	1.0	193.00	7.8	1
SMCJ130A	SMCJ130A	130.00	144.00	159.00	1.0	209.00	7.2	1
SMCJ150A	SMCJ150A	150.00	167.00	185.00	1.0	243.00	6.2	1
SMCJ160A	SMCJ160A	160.00	178.00	197.00	1.0	259.00	5.8	1
SMCJ170A	SMCJ170A	170.00	189.00	209.00	1.0	275.00	5.5	1
SMCJ180A	SMCJ180A	180.00	198.00	221.00	1.0	291.00	5.2	1
SMCJ190A	SMCJ190A	190.00	209.00	233.00	1.0	307.00	4.9	1
SMCJ200A	SMCJ200A	200.00	220.00	246.00	1.0	324.00	4.6	1
SMCJ220A	SMCJ220A	220.00	246.00	272.00	1.0	356.00	4.2	1
SMCJ250A	SMCJ250A	250.00	279.00	309.00	1.0	405.00	3.7	1

5. ELECTRICAL CHARACTERISTICS CURVES

Fig. 1-Peak Pulse Power Rating Curve

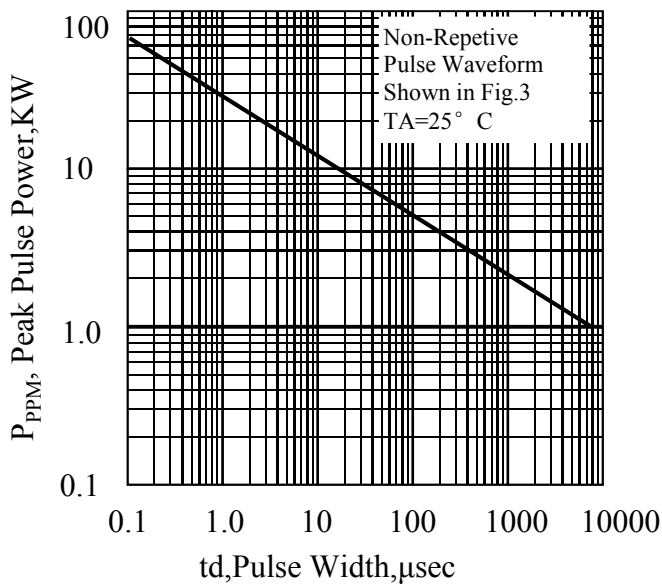


Fig. 2-Pulse Derating Curve

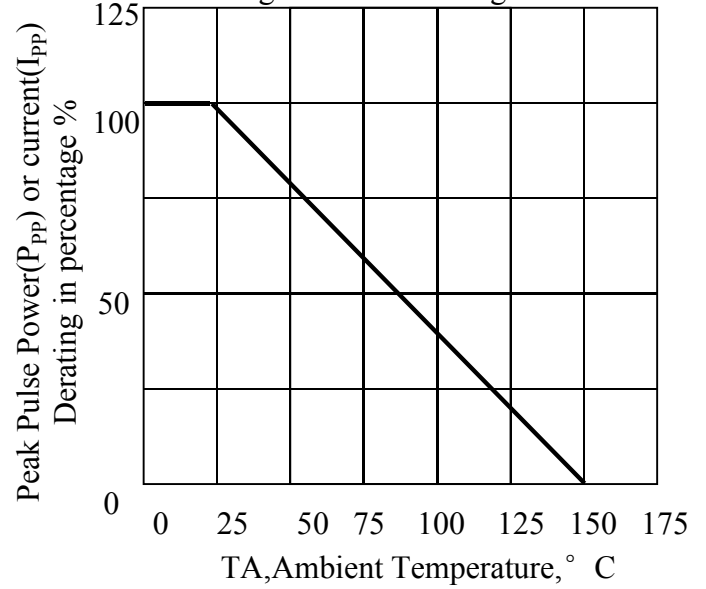


Fig. 3-Pulse Waveform

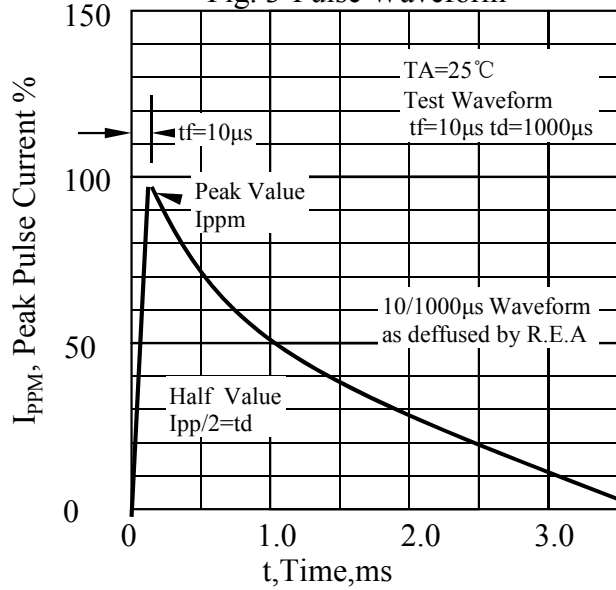


Fig. 4-Typical Junction Capacitance

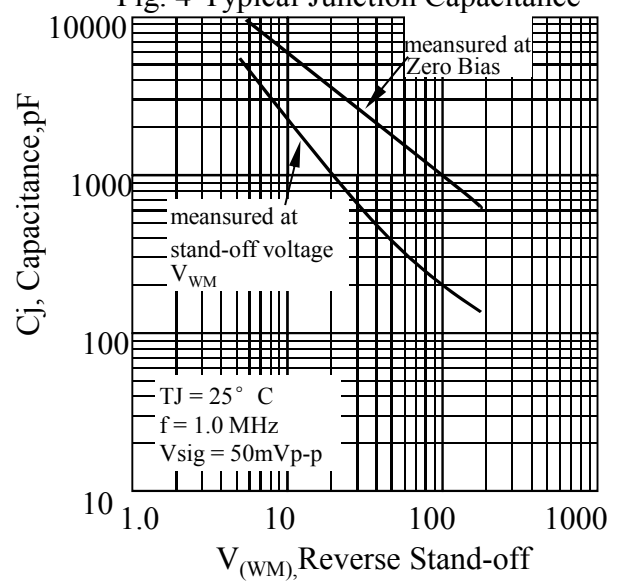
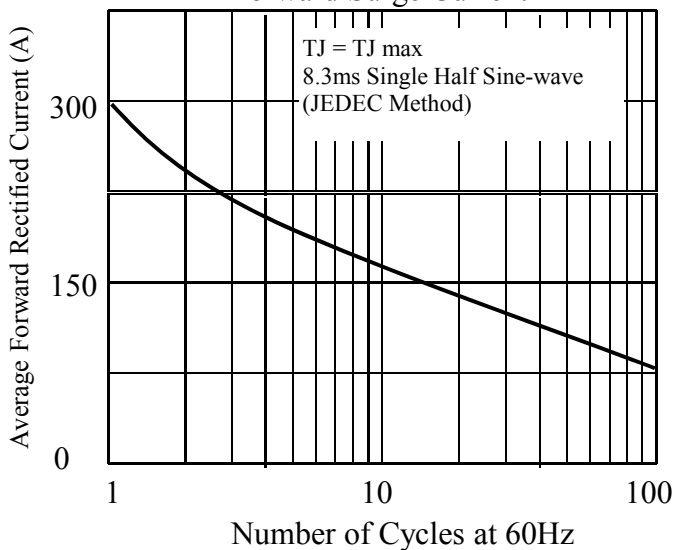
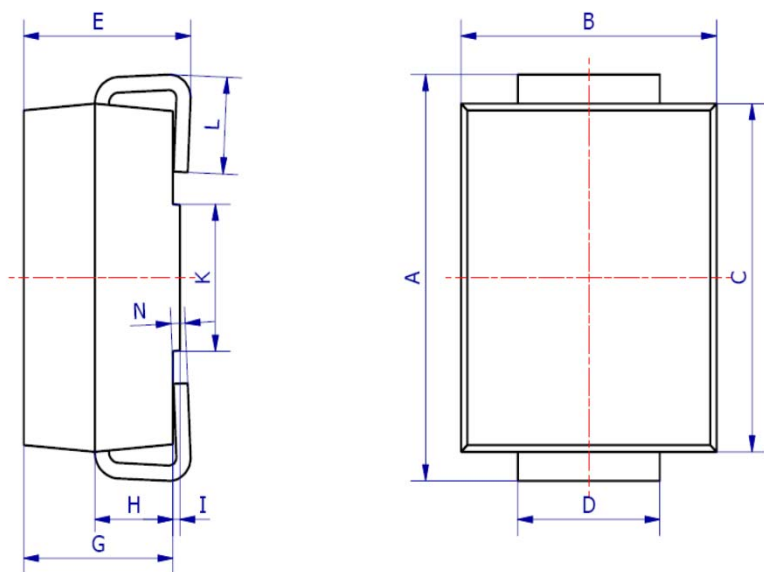


Fig. 5 - Maximum Non-repetitive Peak Forward Surge Current

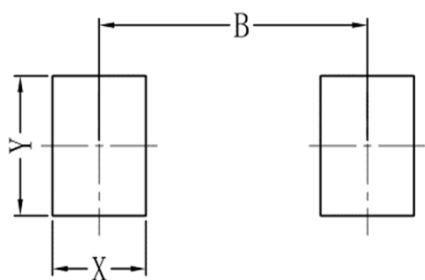


6.OUTLINE AND DIMENSIONS



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