

# DC COMPONENTS CO., LTD.

## RECTIFIER SPECIALISTS

SMCJ5.0 THRU SMCJ220CA

# TECHNICAL SPECIFICATIONS OF TRANSIENT VOLTAGE SUPPRESSOR VOLTAGE RANGE - 5.0 to 220Volts PEAK PULAE POWER - 1500 Watts

## **FEATURES**

- \* Glass passivated junction
- \* 1500 Watts Peak Pulse Power capability on 10/1000 μs waveform
- \* Excellent clamping capability
- \* Low zener impedance
- \* Fast response time

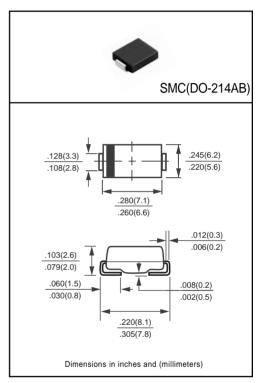
### MECHANICAL DATA

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Color band denotes positive end (cathode) except bidirectional types
- \* Mounting position: Any
- \* Weight: 0.21 gram

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load,

For capacitive load, derate current by 20%.



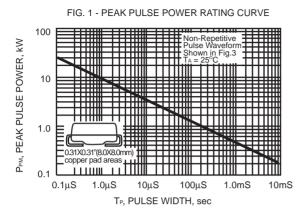
## DEVICES FOR BIPOLAR APPLICATIONS

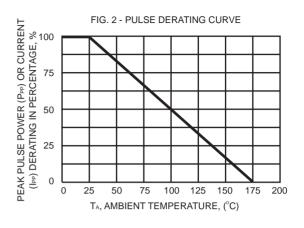
For Bidirectional use C or CA suffix (e.g. SMCJ5.0C, SMCJ220CA). Electrical characteristics apply in both directions

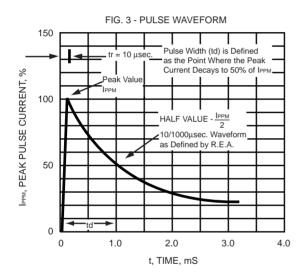
	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation on 10/1000 μs waveform (Note1,FIG.1)	Реем	Minimum 1500	Watts
Steady State Power Dissipation at T = 75°C Lead Lengths .375"(9.5mm) (Note 2)	P <sub>M(AV)</sub>	5.0	Watts
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC Method) (Note 3)	Ігэм	100	Amps
Operating and Storage Temperature Range	TJ, Tstg	-55 to + 175	°C

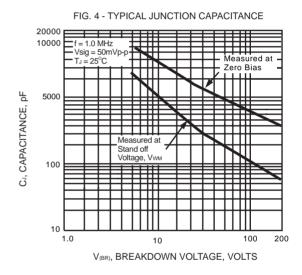
- NOTES: 1. Non-repetitive current pulse, per Fig.3 and derated above  $TA = 25^{\circ}C$  per Fig. 2.
  - 2. Mounted on Copper Leaf area of 0.31 X 0.31"( 8.0~X~8.0mm ) per Fig. 5
  - 3. 8.3ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

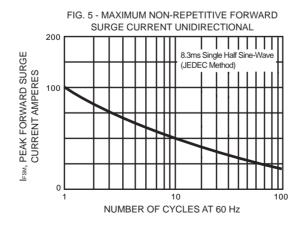
## RATING AND CHARACTERISTIC CURVES (SMCJ5.0 THRU SMCJ220CA)













# SMCJ (1500W) SERIES TRANSIENT VOLTAGE SUPPRESSORS

Type		Reverse Breakdown Stand-off Voltage		Test	Maximum Reverse		Maximum Clamping	Maximum Peak	
New   Min.   Max.   II	TYPE		Voltage @ IT		Current	0			
NCJE   NCJE		VRWM			lτ			Vc	lpp
SMCJ8.0A		V			mA		μΑ	V	Α
SMCJB.0	SMCJ5.0	5.0	6.40	7.55	10	1000	2000	9.6	156.2
SMCJB	SMCJ5.0A	5.0	6.40	7.25	10	1000	2000	9.2	163
SMCJ6.5	SMCJ6.0	6.0	6.67	8.45	10	1000	2000	11.4	131.6
SMCJ65A	SMCJ6.0A	6.0	6.67	7.67	10	1000	2000	10.3	145.6
SMCJ7.0	SMCJ6.5	6.5	7.22	9.14	10	500	1000	12.3	122
SMCJ7.0A	SMCJ6.5A	6.5	7.22	8.30	10	500	1000	11.2	133.9
SMCJ7.5         7.5         8.33         10.67         1         100         200         14.3         104.9           SMCJ8.0         8.0         8.89         11.30         1         50         100         15.0         100           SMCJ8.0         8.0         8.89         11.30         1         50         100         13.6         110.3           SMCJ8.5         8.5         9.44         11.92         1         25         50         15.9         94.3           SMCJ8.6A         8.5         9.44         11.92         1         25         50         15.9         94.3           SMCJ9.0         9.0         10.0         11.5         1         10         20         16.9         88.7           SMCJ10.0         10         11.1         14.1         1         5         18.8         79.8           SMCJ10A         10         11.1         14.1         1         5         18.8         79.8           SMCJ10A         10         11.1         14.1         1         5         18.8         79.8           SMCJ11A         11         12.2         15.4         1         5         20.1         74.6		7.0	7.78	9.86	10	200	400	13.3	112.8
SMCJ8.0	SMCJ7.0A	7.0	7.78	8.95	10	200	400	12.0	125
SMCJ8.0	SMCJ7.5	7.5	8.33	10.67	1	100	200	14.3	104.9
SMCJB.0	SMCJ7.5A	7.5		9.58	1	100	200	12.9	116.3
SMCJ8.5         8.5         9.44         11.92         1         25         50         15.9         94.3           SMCJ8.5A         8.5         9.44         10.82         1         25         50         14.4         104.2           SMCJ9.0         9.0         10.0         12.6         1         10         20         16.9         88.7           SMCJ10         10         11.1         14.1         1         1         20         15.4         97.4           SMCJ10A         10         11.1         14.1         1         1         5         18.8         79.8           SMCJ10A         10         11.1         12.8         1         5         17.0         88.2           SMCJ11A         11         12.2         15.4         1         5         20.1         74.6           SMCJ11A         11         12.2         15.4         1         5         20.1         74.6           SMCJ12A         12         13.3         16.9         1         5         22.0         68.2           SMCJ12A         12         13.3         16.9         1         5         22.0         68.2           SMCJ13A		8.0			1	50	100	15.0	
SMCJ8.5         8.5         9.44         11.92         1         25         50         15.9         94.3           SMCJ9.0         9.0         10.0         12.6         1         10         20         16.9         88.7           SMCJ9.0         9.0         10.0         11.5         1         10         20         16.9         88.7           SMCJ10         10         11.1         14.1         1         1         5         18.8         79.8           SMCJ10A         10         11.1         14.1         1         5         18.8         79.8           SMCJ10A         10         11.1         14.4         1         5         18.8         79.8           SMCJ11A         11         12.2         15.4         1         5         20.1         77.4           SMCJ12         12         13.3         16.9         1         5         20.1         77.4           SMCJ12A         12         13.3         16.9         1         5         22.0         68.2           SMCJ13         13         14.4         18.2         1         5         23.8         63           SMCJ13         13 <t< td=""><td></td><td>8.0</td><td></td><td></td><td>1</td><td>50</td><td>100</td><td></td><td></td></t<>		8.0			1	50	100		
SMCJ8.5A					1				
SMCJ9.0         9.0         10.0         12.6         1         10         20         15.4         97.4           SMCJ10         10         11.1         14.1         1         5         18.8         79.8           SMCJ10A         10         11.1         14.1         1         5         18.8         79.8           SMCJ10A         10         11.1         12.8         1         5         17.0         88.2           SMCJ11         11         12.2         15.4         1         5         20.1         74.6           SMCJ11A         11         12.2         14.0         1         5         18.2         82.4           SMCJ12A         12         13.3         16.9         1         5         22.0         68.2           SMCJ13         13         14.4         18.2         1         5         19.9         75.3           SMCJ13         13         14.4         18.2         1         5         21.5         69.7           SMCJ14A         14         15.6         19.8         1         5         25.8         58.1           SMCJ15A         15         16.7         21.1         1         <					1				
SMCJ9.0A         9.0         10.0         11.5         1         10         20         15.4         97.4           SMCJ10A         10         11.1         14.1         1         5         18.8         79.8           SMCJ10A         10         11.1         12.8         1         5         17.0         88.2           SMCJ11A         11         12.2         15.4         1         5         20.1         74.6           SMCJ11A         11         12.2         14.0         1         5         18.2         82.4           SMCJ12A         11         12.2         14.0         1         5         18.2         82.4           SMCJ12A         12         13.3         16.9         1         5         22.0         68.2           SMCJ13A         13         14.4         18.2         1         5         23.8         63           SMCJ14A         14         15.6         19.8         1         5         22.5         69.7           SMCJ14A         14         15.6         19.8         1         5         22.8         58.1           SMCJ15A         15         16.7         21.1         1				12.6	1				
SMCJ10A         10         11.1         12.8         1         5         17.0         88.2           SMCJ11A         11         12.2         15.4         1         5         20.1         74.6           SMCJ11A         11         12.2         14.0         1         5         18.2         82.4           SMCJ12         12         13.3         16.9         1         5         22.0         68.2           SMCJ12A         12         13.3         16.9         1         5         22.0         68.2           SMCJ13         13.3         14.4         18.2         1         5         19.9         75.3           SMCJ13A         13         14.4         16.5         1         5         21.5         69.7           SMCJ14A         14         15.6         19.8         1         5         25.8         58.1           SMCJ15         15         16.7         21.1         1         5         22.2         64.7           SMCJ15A         15         16.7         21.1         1         5         22.8         58.1           SMCJ15A         15         16.7         19.2         1         5         <	SMCJ9.0A	9.0	10.0	11.5	1	10	20	15.4	97.4
SMCJ11         11         12.2         15.4         1         5         20.1         74.6           SMCJ11A         11         12.2         14.0         1         5         18.2         82.4           SMCJ12         12         13.3         16.9         1         5         22.0         68.2           SMCJ13A         13         14.4         18.2         1         5         23.8         63           SMCJ13A         13         14.4         18.2         1         5         23.8         63           SMCJ14A         14         15.6         19.8         1         5         225.8         58.1           SMCJ14A         14         15.6         19.8         1         5         25.8         58.1           SMCJ14A         14         15.6         17.9         1         5         25.8         58.1           SMCJ15         15         16.7         19.2         1         5         26.9         55.8           SMCJ16A         16         17.8         22.6         1         5         28.8         52.1           SMCJ16A         16         17.8         20.5         1         5         28	SMCJ10	10	11.1	14.1	1	5	5	18.8	79.8
SMCJ11         11         12.2         15.4         1         5         20.1         74.6           SMCJ11A         11         12.2         14.0         1         5         18.2         82.4           SMCJ12         12         13.3         16.9         1         5         22.0         68.2           SMCJ13A         13         14.4         18.2         1         5         23.8         63           SMCJ13A         13         14.4         18.2         1         5         23.8         63           SMCJ14A         14         15.6         19.8         1         5         225.8         58.1           SMCJ14A         14         15.6         19.8         1         5         25.8         58.1           SMCJ14A         14         15.6         17.9         1         5         25.8         58.1           SMCJ15         15         16.7         19.2         1         5         26.9         55.8           SMCJ16A         16         17.8         22.6         1         5         28.8         52.1           SMCJ16A         16         17.8         20.5         1         5         28	SMCJ10A	10	11.1	12.8	1	5	5	17.0	
SMCJ11A         11         12.2         14.0         1         5         18.2         82.4           SMCJ12A         12         13.3         16.9         1         5         22.0         68.2           SMCJ12A         12         13.3         15.3         1         5         19.9         75.3           SMCJ13         13         14.4         18.2         1         5         23.8         63           SMCJ14A         14         15.6         1         5         21.5         69.7           SMCJ14A         14         15.6         17.9         1         5         23.2         64.7           SMCJ15A         15         16.7         21.1         1         5         26.9         55.8           SMCJ15A         15         16.7         21.1         1         5         26.9         55.8           SMCJ15A         15         16.7         19.2         1         5         22.4         61.5           SMCJ16         16         17.8         22.6         1         5         28.8         52.1           SMCJ16A         16         17.8         20.5         1         5         26.0	SMCJ11	11	12.2	15.4	1				74.6
SMCJ12         12         13.3         16.9         1         5         22.0         68.2           SMCJ12A         12         13.3         15.3         1         5         19.9         75.3           SMCJ13         13         14.4         18.2         1         5         23.8         63           SMCJ13A         13         14.4         16.5         1         5         21.5         69.7           SMCJ14A         14         15.6         19.8         1         5         25.8         58.1           SMCJ14A         14         15.6         17.9         1         5         23.2         64.7           SMCJ15         15         16.7         21.1         1         5         26.9         55.8           SMCJ15A         15         16.7         19.2         1         5         26.9         55.8           SMCJ16A         16         17.8         22.6         1         5         24.4         61.5           SMCJ16A         16         17.8         22.6         1         5         28.8         52.1           SMCJ17A         17         18.9         21.7         1         5         2	SMCJ11A	11	12.2	14.0	1			18.2	82.4
SMCJ12A         12         13.3         15.3         1         5         19.9         75.3           SMCJ13         13         14.4         18.2         1         5         23.8         63           SMCJ13A         13         14.4         16.5         1         5         21.5         69.7           SMCJ14         14         15.6         19.8         1         5         25.8         58.1           SMCJ14A         14         15.6         17.9         1         5         25.8         58.1           SMCJ15         15         16.7         21.1         1         5         26.9         55.8           SMCJ15A         15         16.7         21.1         1         5         26.9         55.8           SMCJ16         16         17.8         22.6         1         5         24.4         61.5           SMCJ16A         16         17.8         22.6         1         5         28.8         52.1           SMCJ16A         16         17.8         20.5         1         5         26.0         57.7           SMCJ16A         16         17.8         20.5         1         5         27		12		16.9	1				
SMCJ13         13         14.4         18.2         1         5         23.8         63           SMCJ13A         13         14.4         16.5         1         5         21.5         69.7           SMCJ14         14         15.6         19.8         1         5         25.8         58.1           SMCJ14A         14         15.6         17.9         1         5         23.2         64.7           SMCJ15         15         16.7         21.1         1         5         26.9         55.8           SMCJ15A         15         16.7         21.1         1         5         26.9         55.8           SMCJ16         16         17.8         22.6         1         5         22.9         55.8           SMCJ16A         16         17.8         20.5         1         5         28.8         52.1           SMCJ17A         17         18.9         23.9         1         5         27.6         53.3           SMCJ17A         17         18.9         21.7         1         5         27.6         53.3           SMCJ17A         17         18.9         21.7         1         5         27	SMCJ12A	12	13.3	15.3	1				75.3
SMCJ14         14         15.6         19.8         1         5         25.8         58.1           SMCJ14A         14         15.6         17.9         1         5         23.2         64.7           SMCJ15         15         16.7         21.1         1         5         26.9         55.8           SMCJ15A         15         16.7         19.2         1         5         24.4         61.5           SMCJ16         16         17.8         22.6         1         5         28.8         52.1           SMCJ16A         16         17.8         20.5         1         5         28.8         52.1           SMCJ17A         17         18.9         23.9         1         5         30.5         49.2           SMCJ17A         17         18.9         21.7         1         5         27.6         53.3           SMCJ18         18         20.0         25.3         1         5         27.6         53.3           SMCJ20         20         22.2         28.1         1         5         32.2         46.6           SMCJ20         20         22.2         28.5         1         5         35	SMCJ13	13		18.2	1	5	5	23.8	63
SMCJ14A         14         15.6         17.9         1         5         23.2         64.7           SMCJ15         15         16.7         21.1         1         5         26.9         55.8           SMCJ15A         15         16.7         21.1         1         5         26.9         55.8           SMCJ16A         16         17.8         22.6         1         5         28.8         52.1           SMCJ16A         16         17.8         20.5         1         5         26.0         57.7           SMCJ17A         17         18.9         23.9         1         5         26.0         57.7           SMCJ17A         17         18.9         23.9         1         5         27.6         53.3           SMCJ18         18         20.0         25.3         1         5         27.6         53.3           SMCJ18A         18         20.0         23.3         1         5         29.2         51.4           SMCJ20         20         22.2         28.1         1         5         32.4         46.6           SMCJ20A         20         22.2         25.5         1         5 <th< td=""><td></td><td></td><td>14.4</td><td></td><td>1</td><td colspan="2"></td><td></td><td></td></th<>			14.4		1				
SMCJ15         15         16.7         21.1         1         5         26.9         55.8           SMCJ15A         15         16.7         19.2         1         5         24.4         61.5           SMCJ16         16         17.8         22.6         1         5         28.8         52.1           SMCJ16A         16         17.8         20.5         1         5         26.0         57.7           SMCJ17         17         18.9         23.9         1         5         26.0         57.7           SMCJ17A         17         18.9         23.9         1         5         27.6         53.3           SMCJ18         18         20.0         25.3         1         5         32.2         46.6           SMCJ20A         18         20.0         23.3         1         5         29.2         51.4           SMCJ20         20         22.2         28.1         1         5         32.2         46.6           SMCJ20A         20         22.2         28.5         1         5         32.4         46.3           SMCJ20A         20         22.2         25.5         1         5         3	SMCJ14	14	15.6	19.8	1	5	5	25.8	58.1
SMCJ15A         15         16.7         19.2         1         5         24.4         61.5           SMCJ16         16         17.8         22.6         1         5         28.8         52.1           SMCJ16A         16         17.8         22.6         1         5         28.0         57.7           SMCJ17         17         18.9         23.9         1         5         30.5         49.2           SMCJ17A         17         18.9         21.7         1         5         27.6         53.3           SMCJ18         18         20.0         25.3         1         5         32.2         46.6           SMCJ18A         18         20.0         23.3         1         5         29.2         51.4           SMCJ20         20         22.2         28.1         1         5         32.4         46.6           SMCJ20A         20         22.2         25.5         1         5         32.4         46.3           SMCJ20A         20         22.2         25.5         1         5         32.4         46.3           SMCJ22A         22         24.4         28.0         1         5	SMCJ14A	14		17.9	1	5	5		
SMCJ15A         15         16.7         19.2         1         5         24.4         61.5           SMCJ16         16         17.8         22.6         1         5         28.8         52.1           SMCJ16A         16         17.8         22.6         1         5         28.0         57.7           SMCJ17         17         18.9         23.9         1         5         30.5         49.2           SMCJ17A         17         18.9         21.7         1         5         27.6         53.3           SMCJ18         18         20.0         25.3         1         5         32.2         46.6           SMCJ18A         18         20.0         23.3         1         5         29.2         51.4           SMCJ20         20         22.2         28.1         1         5         32.4         46.6           SMCJ20A         20         22.2         25.5         1         5         32.4         46.3           SMCJ20A         20         22.2         25.5         1         5         32.4         46.3           SMCJ22A         22         24.4         28.0         1         5	SMCJ15	15	16.7	21.1	1	5	5	26.9	55.8
SMCJ16A         16         17.8         20.5         1         5         26.0         57.7           SMCJ17         17         18.9         23.9         1         5         30.5         49.2           SMCJ17A         17         18.9         21.7         1         5         27.6         53.3           SMCJ18         18         20.0         25.3         1         5         32.2         46.6           SMCJ18A         18         20.0         23.3         1         5         29.2         51.4           SMCJ20         20         22.2         28.1         1         5         32.4         46.6           SMCJ20A         20         22.2         25.5         1         5         33.8         41.9           SMCJ20A         20         22.2         25.5         1         5         39.4         38.1           SMCJ22         22         24.4         30.9         1         5         39.4         38.1           SMCJ22A         22         24.4         28.0         1         5         35.5         42.2           SMCJ24A         24         26.7         33.8         1         5	SMCJ15A	15	16.7		1	5	5	24.4	
SMCJ16A         16         17.8         20.5         1         5         26.0         57.7           SMCJ17         17         18.9         23.9         1         5         30.5         49.2           SMCJ17A         17         18.9         21.7         1         5         27.6         53.3           SMCJ18         18         20.0         25.3         1         5         32.2         46.6           SMCJ18A         18         20.0         23.3         1         5         29.2         51.4           SMCJ20         20         22.2         28.1         1         5         35.8         41.9           SMCJ20A         20         22.2         25.5         1         5         32.4         46.3           SMCJ20A         20         22.2         25.5         1         5         39.4         38.1           SMCJ22A         22         24.4         28.0         1         5         39.4         38.1           SMCJ24A         24         26.7         33.8         1         5         43.0         34.9           SMCJ26         26         28.9         36.6         1         5	SMCJ16	16	17.8	22.6	1	5	5	28.8	52.1
SMCJ17         17         18.9         23.9         1         5         30.5         49.2           SMCJ17A         17         18.9         21.7         1         5         27.6         53.3           SMCJ18         18         20.0         25.3         1         5         32.2         46.6           SMCJ18A         18         20.0         23.3         1         5         29.2         51.4           SMCJ20         20         22.2         28.1         1         5         35.8         41.9           SMCJ20A         20         22.2         25.5         1         5         32.4         46.3           SMCJ20A         20         22.2         25.5         1         5         32.4         46.3           SMCJ20A         20         22.2         25.5         1         5         32.4         46.3           SMCJ22A         22         24.4         28.0         1         5         39.4         38.1           SMCJ24A         24         26.7         33.8         1         5         43.0         34.9           SMCJ26A         26         28.9         33.2         1         5 <td< td=""><td></td><td>16</td><td>17.8</td><td>20.5</td><td>1</td><td>5</td><td>5</td><td></td><td>57.7</td></td<>		16	17.8	20.5	1	5	5		57.7
SMCJ18         18         20.0         25.3         1         5         32.2         46.6           SMCJ18A         18         20.0         23.3         1         5         29.2         51.4           SMCJ20         20         22.2         28.1         1         5         35.8         41.9           SMCJ20A         20         22.2         25.5         1         5         32.4         46.3           SMCJ22         22         24.4         30.9         1         5         39.4         38.1           SMCJ22A         22         24.4         28.0         1         5         35.5         42.2           SMCJ24A         24         26.7         33.8         1         5         43.0         34.9           SMCJ24A         24         26.7         30.7         1         5         38.9         38.6           SMCJ26A         26         28.9         36.6         1         5         46.6         32.2           SMCJ28A         28         31.1         39.4         1         5         42.1         35.6           SMCJ30A         30         33.3         42.2         1         5 <th< td=""><td></td><td>17</td><td></td><td></td><td>1</td><td>5</td><td>5</td><td></td><td></td></th<>		17			1	5	5		
SMCJ18         18         20.0         25.3         1         5         32.2         46.6           SMCJ18A         18         20.0         23.3         1         5         29.2         51.4           SMCJ20         20         22.2         28.1         1         5         35.8         41.9           SMCJ20A         20         22.2         25.5         1         5         32.4         46.3           SMCJ22         22         24.4         30.9         1         5         39.4         38.1           SMCJ22A         22         24.4         28.0         1         5         35.5         42.2           SMCJ24A         24         26.7         33.8         1         5         43.0         34.9           SMCJ24A         24         26.7         30.7         1         5         38.9         38.6           SMCJ26A         26         28.9         36.6         1         5         46.6         32.2           SMCJ28A         28         31.1         39.4         1         5         42.1         35.6           SMCJ30A         30         33.3         42.2         1         5 <th< td=""><td>SMCJ17A</td><td>17</td><td>18.9</td><td>21.7</td><td>1</td><td>5</td><td>5</td><td>27.6</td><td>53.3</td></th<>	SMCJ17A	17	18.9	21.7	1	5	5	27.6	53.3
SMCJ18A         18         20.0         23.3         1         5         29.2         51.4           SMCJ20         20         22.2         28.1         1         5         35.8         41.9           SMCJ20A         20         22.2         25.5         1         5         32.4         46.3           SMCJ22         22         24.4         30.9         1         5         39.4         38.1           SMCJ22A         22         24.4         28.0         1         5         35.5         42.2           SMCJ24A         24         26.7         33.8         1         5         35.5         42.2           SMCJ24A         24         26.7         30.7         1         5         38.9         38.6           SMCJ26A         26         28.9         36.6         1         5         46.6         32.2           SMCJ26A         26         28.9         33.2         1         5         42.1         35.6           SMCJ28         28         31.1         39.4         1         5         50.0         30           SMCJ28A         28         31.1         35.8         1         5         4		18		25.3	1	5	5		
SMCJ20         20         22.2         28.1         1         5         35.8         41.9           SMCJ20A         20         22.2         25.5         1         5         32.4         46.3           SMCJ22         22         24.4         30.9         1         5         39.4         38.1           SMCJ22A         22         24.4         28.0         1         5         35.5         42.2           SMCJ24         24         26.7         33.8         1         5         43.0         34.9           SMCJ24A         24         26.7         30.7         1         5         38.9         38.6           SMCJ26A         26         28.9         36.6         1         5         46.6         32.2           SMCJ26A         26         28.9         33.2         1         5         42.1         35.6           SMCJ28         28         31.1         39.4         1         5         50.0         30           SMCJ28A         28         31.1         35.8         1         5         45.4         33           SMCJ30A         30         33.3         36.7         46.5         1         5					1				
SMCJ20A         20         22.2         25.5         1         5         32.4         46.3           SMCJ22         22         24.4         30.9         1         5         39.4         38.1           SMCJ22A         22         24.4         28.0         1         5         35.5         42.2           SMCJ24         24         26.7         33.8         1         5         43.0         34.9           SMCJ24A         24         26.7         30.7         1         5         38.9         38.6           SMCJ26A         26         28.9         36.6         1         5         46.6         32.2           SMCJ26A         26         28.9         33.2         1         5         42.1         35.6           SMCJ28         28         31.1         39.4         1         5         50.0         30           SMCJ28A         28         31.1         35.8         1         5         45.4         33           SMCJ30         30         33.3         42.2         1         5         53.5         28           SMCJ30A         30         33.3         36.7         46.5         1         5 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
SMCJ22         22         24.4         30.9         1         5         39.4         38.1           SMCJ22A         22         24.4         28.0         1         5         35.5         42.2           SMCJ24         24         26.7         33.8         1         5         43.0         34.9           SMCJ24A         24         26.7         30.7         1         5         38.9         38.6           SMCJ26         26         28.9         36.6         1         5         46.6         32.2           SMCJ26A         26         28.9         33.2         1         5         42.1         35.6           SMCJ28A         28         31.1         39.4         1         5         50.0         30           SMCJ30A         28         31.1         35.8         1         5         45.4         33           SMCJ30         30         33.3         42.2         1         5         53.5         28           SMCJ30A         30         33.3         38.3         1         5         48.4         31           SMCJ33         33         36.7         46.5         1         5         53.3									
SMCJ22A         22         24.4         28.0         1         5         35.5         42.2           SMCJ24         24         26.7         33.8         1         5         43.0         34.9           SMCJ24A         24         26.7         30.7         1         5         38.9         38.6           SMCJ26         26         28.9         36.6         1         5         46.6         32.2           SMCJ26A         26         28.9         33.2         1         5         42.1         35.6           SMCJ28A         28         31.1         39.4         1         5         50.0         30           SMCJ30A         28         31.1         39.4         1         5         45.4         33           SMCJ30B         30         33.3         42.2         1         5         53.5         28           SMCJ30A         30         33.3         38.3         1         5         48.4         31           SMCJ33A         33         36.7         46.5         1         5         59.0         25.2           SMCJ36A         36         40.0         50.7         1         5         53.3 </td <td></td> <td>22</td> <td>24.4</td> <td>30.9</td> <td>1</td> <td>5</td> <td>5</td> <td>39.4</td> <td>38.1</td>		22	24.4	30.9	1	5	5	39.4	38.1
SMCJ24         24         26.7         33.8         1         5         43.0         34.9           SMCJ24A         24         26.7         30.7         1         5         38.9         38.6           SMCJ26         26         28.9         36.6         1         5         46.6         32.2           SMCJ26A         26         28.9         33.2         1         5         42.1         35.6           SMCJ28         28         31.1         39.4         1         5         50.0         30           SMCJ28A         28         31.1         35.8         1         5         45.4         33           SMCJ30         30         33.3         42.2         1         5         53.5         28           SMCJ30A         30         33.3         38.3         1         5         48.4         31           SMCJ33A         33         36.7         46.5         1         5         59.0         25.2           SMCJ33A         33         36.7         42.2         1         5         53.3         28.1           SMCJ36A         36         40.0         50.7         1         5         53.3 <td></td> <td></td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td>					1				
SMCJ24A         24         26.7         30.7         1         5         38.9         38.6           SMCJ26         26         28.9         36.6         1         5         46.6         32.2           SMCJ26A         26         28.9         33.2         1         5         42.1         35.6           SMCJ28         28         31.1         39.4         1         5         50.0         30           SMCJ28A         28         31.1         35.8         1         5         45.4         33           SMCJ30         30         33.3         42.2         1         5         53.5         28           SMCJ30A         30         33.3         38.3         1         5         48.4         31           SMCJ33         33         36.7         46.5         1         5         59.0         25.2           SMCJ33A         33         36.7         42.2         1         5         53.3         28.1           SMCJ36         36         40.0         50.7         1         5         64.3         23.3           SMCJ36A         36         40.0         46.0         1         5         58.1									
SMCJ26         26         28.9         36.6         1         5         46.6         32.2           SMCJ26A         26         28.9         33.2         1         5         42.1         35.6           SMCJ28         28         31.1         39.4         1         5         50.0         30           SMCJ28A         28         31.1         35.8         1         5         45.4         33           SMCJ30         30         33.3         42.2         1         5         53.5         28           SMCJ30A         30         33.3         38.3         1         5         48.4         31           SMCJ33         33         36.7         46.5         1         5         59.0         25.2           SMCJ36A         36         40.0         50.7         1         5         64.3         23.3           SMCJ36A         36         40.0         46.0         1         5         58.1         25.8           SMCJ40         40         44.4         56.3         1         5         71.4         21					1				
SMCJ26A         26         28.9         33.2         1         5         42.1         35.6           SMCJ28         28         31.1         39.4         1         5         50.0         30           SMCJ28A         28         31.1         35.8         1         5         45.4         33           SMCJ30         30         33.3         42.2         1         5         53.5         28           SMCJ30A         30         33.3         38.3         1         5         48.4         31           SMCJ33         33         36.7         46.5         1         5         59.0         25.2           SMCJ36A         36         40.0         50.7         1         5         64.3         23.3           SMCJ36A         36         40.0         46.0         1         5         58.1         25.8           SMCJ40         40         44.4         56.3         1         5         71.4         21		26			1				
SMCJ28         28         31.1         39.4         1         5         50.0         30           SMCJ28A         28         31.1         35.8         1         5         45.4         33           SMCJ30         30         33.3         42.2         1         5         53.5         28           SMCJ30A         30         33.3         38.3         1         5         48.4         31           SMCJ33         33         36.7         46.5         1         5         59.0         25.2           SMCJ36A         36         40.0         50.7         1         5         64.3         23.3           SMCJ36A         36         40.0         46.0         1         5         58.1         25.8           SMCJ40         40         44.4         56.3         1         5         71.4         21					1				
SMCJ28A         28         31.1         35.8         1         5         45.4         33           SMCJ30         30         33.3         42.2         1         5         53.5         28           SMCJ30A         30         33.3         38.3         1         5         48.4         31           SMCJ33         33         36.7         46.5         1         5         59.0         25.2           SMCJ33A         33         36.7         42.2         1         5         53.3         28.1           SMCJ36         36         40.0         50.7         1         5         64.3         23.3           SMCJ36A         36         40.0         46.0         1         5         58.1         25.8           SMCJ40         40         44.4         56.3         1         5         71.4         21									
SMCJ30         30         33.3         42.2         1         5         53.5         28           SMCJ30A         30         33.3         38.3         1         5         48.4         31           SMCJ33         33         36.7         46.5         1         5         59.0         25.2           SMCJ33A         33         36.7         42.2         1         5         53.3         28.1           SMCJ36         36         40.0         50.7         1         5         64.3         23.3           SMCJ36A         36         40.0         46.0         1         5         58.1         25.8           SMCJ40         40         44.4         56.3         1         5         71.4         21					1				
SMCJ30A         30         33.3         38.3         1         5         48.4         31           SMCJ33         33         36.7         46.5         1         5         59.0         25.2           SMCJ33A         33         36.7         42.2         1         5         53.3         28.1           SMCJ36         36         40.0         50.7         1         5         64.3         23.3           SMCJ36A         36         40.0         46.0         1         5         58.1         25.8           SMCJ40         40         44.4         56.3         1         5         71.4         21					1				
SMCJ33     33     36.7     46.5     1     5     59.0     25.2       SMCJ33A     33     36.7     42.2     1     5     53.3     28.1       SMCJ36     36     40.0     50.7     1     5     64.3     23.3       SMCJ36A     36     40.0     46.0     1     5     58.1     25.8       SMCJ40     40     44.4     56.3     1     5     71.4     21		30			1				31
SMCJ33A     33     36.7     42.2     1     5     53.3     28.1       SMCJ36     36     40.0     50.7     1     5     64.3     23.3       SMCJ36A     36     40.0     46.0     1     5     58.1     25.8       SMCJ40     40     44.4     56.3     1     5     71.4     21					1			59.0	
SMCJ36     36     40.0     50.7     1     5     64.3     23.3       SMCJ36A     36     40.0     46.0     1     5     58.1     25.8       SMCJ40     40     44.4     56.3     1     5     71.4     21									
SMCJ36A         36         40.0         46.0         1         5         58.1         25.8           SMCJ40         40         44.4         56.3         1         5         71.4         21					1				
SMCJ40 40 44.4 56.3 1 5 71.4 21									
					1				



# SMCJ (1500W) SERIES TRANSIENT VOLTAGE SUPPRESSORS

TYPE	Reverse Stand-off Voltage	Breakdown Voltage @ IT		Test Current	Maximum Reverse Leakage @ Vʀwм	Maximum Clamping Voltage @ IPP	Maximum Peak Pulse Current
ITPE	VRWM	V <sub>BR</sub> Min.   Max.		· Ιτ	IR UNI- BI-	Vc Vc	IPP
	V	V	V	mA	μΑ μΑ	V	А
SMCJ43	43	47.8	60.5	1	5	76.7	19.6
SMCJ43A	43	47.8	54.9	1	5	69.4	21.6
SMCJ45	45	50.0	63.3	1	5	80.3	18.7
SMCJ45A	45	50.0	57.5	1	5	72.7	20.6
SMCJ48	48	53.3	67.5	1	5	85.5	17.5
SMCJ48A	48	53.3	61.3	1	5	77.4	19.4
SMCJ51	51	56.7	71.8	1	5	91.1	18.5
SMCJ51A	51	56.7	65.2	1	5	82.4	18.2
SMCJ54	54	60.0	76.0	1	5	96.3	15.6
SMCJ54A	54	60.0	69.0	1	5	87.1	17.2
SMCJ58	58	64.4	81.6	1	5	103.0	14.6
SMCJ58A	58	64.4	74.1	1	5	93.6	16
SMCJ60	60	66.7	84.5	1	5	107.0	14
SMCJ60A	60	66.7	76.7	1	5	96.8	15.5
SMCJ64	64	71.1	90.1	1	5	114	13.2
SMCJ64A	64	71.1	81.8	1	5	103	14.6
SMCJ70	70	77.8	98.6	1	5	125	12
SMCJ70A	70	77.8	89.5	1	5	113	13.3
SMCJ75	75	83.3	105.7	1	5	134	11.2
SMCJ75A	75	83.3	95.8	1	5	121	12.4
SMCJ78	78	86.7	109.8	1	5	139	10.8
SMCJ78A	78	86.7	99.7	1	5	126	11.4
SMCJ85	85	94.4	119.2	1	5	151	9.9
SMCJ85A	85	94.4	108.2	1	5	137	10.4
SMCJ90	90	100 100	126.5	1	5	160	9.4
SMCJ90A			115.5		5	146	10.3
SMCJ100 SMCJ100A	100 100	111 111	141.0 128.0	1	<u>5</u> 5	179 162	8.4 9.3
SMCJ100A SMCJ110	110	122	154.5	1	5	196	7.7
SMCJ110A	110	122	140.5	1	5	177	8.4
SMCJ110A SMCJ120	120	133	169.0	1	5	214	7
SMCJ120A	120	133	153.0	1	5	193	7.9
SMCJ120A SMCJ130	130	144	182.5	1	5	231	6.5
SMCJ130A	130	144	165.5	1	5	209	7.2
SMCJ150A	150	167	211.5	1	5	268	5.6
SMCJ150A	150	167	192.5	1	5	243	6.2
SMCJ160	160	178	226.0	1	5	287	5.2
SMCJ160A	160	178	205.0	1	5	259	5.8
SMCJ170	170	189	239.5	1	5	304	4.9
SMCJ170A	170	189	217.5	1	5	275	5.5
SMCJ180	180	198	253.8	1	5	322	4.7
SMCJ180A	180	198	230.4	1	5	292	5.1
SMCJ190	190	209	267.9	1	5	340	4.4
SMCJ190A	190	209	243.2	1	5	308	4.8
SMCJ200	200	220	282.0	1	5	358	4.1
SMCJ200A	200	220	256.0	1	5	324	4.6
SMCJ210	210	231	296.1	1	5	376	4
SMCJ210A	210	231	268.8	1	5	340	4.4
SMCJ220	220	242	310.2	1	5	394	3.8
SMCJ220A	220	242	281.6	1	5	356	4.2

NOTES:1. VBR measured after IT applied for 300μs. IT= Square Wave Pulse or equivalent.

<sup>3.</sup> For bidirectional types having VRWM of 10 volts and less, the ID limit is doubled.



<sup>2.</sup> For Bidirectional use "C" or "CA" Suffix for all types (e.g.: SMCJ5.0<u>C</u>, SMCJ.0<u>CA</u>, SMCJ220<u>C</u>, SMCJ220<u>CA</u>). Electrical characteristics apply in both directions.