


**NEW** 1SMC5.0CA  
THRU  
1SMC170CA



**BI-DIRECTIONAL  
GLASS PASSIVATED JUNCTION  
TRANSIENT VOLTAGE SUPPRESSOR  
1500 WATTS, 5.0 THRU 170 VOLTS**



*Specified by*  
**STAND-OFF VOLTAGE**

## DESCRIPTION

The CENTRAL SEMICONDUCTOR 1SMC5.0CA Series types are Surface Mount Bi-Directional Glass Passivated Junction Transient Voltage Suppressors designed to protect voltage sensitive components from high voltage transients. **THIS DEVICE IS MANUFACTURED WITH A GLASS PASSIVATED CHIP FOR OPTIMUM RELIABILITY.**

Note: For Uni-directional devices, please refer to the 1SMC5.0A Series data sheet.

## MAXIMUM RATINGS (T<sub>A</sub>=25°C)

	SYMBOL	UNITS
Peak Power Dissipation	P <sub>DM</sub>	1500 W
Peak Forward Surge Current (JEDEC Method)	I <sub>FSM</sub>	200 A
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150 °C

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C)

TYPE NO.	REVERSE STAND-OFF VOLTAGE	BREAKDOWN VOLTAGE			MAXIMUM REVERSE LEAKAGE @ V <sub>RWM</sub>	MAXIMUM CLAMPING VOLTAGE @ I <sub>PPM</sub>	MAXIMUM PEAK PULSE CURRENT	MARKING CODE
		V <sub>BR</sub>		@ T <sub>J</sub>				
		VOLTS						
		V <sub>RWM</sub>	MIN	MAX				
VOLTS				μA	VOLTS	A		
1SMC5.0CA	5.0	6.40	7.25	10	1000	9.2	163.0	CBDE
1SMC6.0CA	6.0	6.67	7.67	10	1000	10.3	145.6	CBDG
1SMC6.5CA	6.5	7.22	8.30	10	500	11.2	133.9	CBDK
1SMC7.0CA	7.0	7.78	8.95	10	200	12.0	125.0	CBDM
1SMC7.5CA	7.5	8.33	9.58	1.0	100	12.9	116.3	CBDP
1SMC8.0CA	8.0	8.89	10.23	1.0	50	13.6	110.3	CBDR
1SMC8.5CA	8.5	9.44	10.82	1.0	20	14.4	104.2	CBDT
1SMC9.0CA	9.0	10.0	11.5	1.0	10	15.4	97.4	CBDV
1SMC10CA	10	11.1	12.8	1.0	5.0	17.0	88.2	CBDX
1SMC11CA	11	12.2	14.0	1.0	5.0	18.2	82.4	CBDZ
1SMC12CA	12	13.3	15.3	1.0	5.0	19.9	75.3	CBEE
1SMC13CA	13	14.4	16.5	1.0	5.0	21.5	69.7	CBEG

TYPE NO.	BREAKDOWN VOLTAGE				MAXIMUM REVERSE LEAKAGE @ $V_{RWM}$	MAXIMUM CLAMPING VOLTAGE @ $I_{PPM}$	MAXIMUM PEAK PULSE CURRENT	MARKING CODE
	REVERSE STAND-OFF VOLTAGE	$V_{BR}$		@ $I_T$				
		VOLTS						
	$V_{RWM}$	MIN	MAX	mA				
VOLTS				$\mu A$	VOLTS	A		
1SMC14CA	14	15.6	17.9	1.0	5.0	23.2	64.7	CBEK
1SMC15CA	15	16.7	19.2	1.0	5.0	24.4	61.5	CBEM
1SMC16CA	16	17.8	20.5	1.0	5.0	26.0	57.7	CBEP
1SMC17CA	17	18.9	21.7	1.0	5.0	27.6	53.3	CBER
1SMC18CA	18	20.0	23.3	1.0	5.0	29.2	51.4	CBET
1SMC20CA	20	22.2	25.5	1.0	5.0	32.4	46.3	CBEV
1SMC22CA	22	24.4	28.0	1.0	5.0	35.5	42.2	CBEX
1SMC24CA	24	26.7	30.7	1.0	5.0	38.9	38.6	CBEZ
1SMC26CA	26	28.9	33.2	1.0	5.0	42.1	35.6	CBFE
1SMC28CA	28	31.1	35.8	1.0	5.0	45.4	33.0	CBFG
1SMC30CA	30	33.3	38.3	1.0	5.0	48.4	31.0	CBFK
1SMC33CA	33	36.7	42.2	1.0	5.0	53.3	28.1	CBFM
1SMC36CA	36	40.0	46.0	1.0	5.0	58.1	25.8	CBFP
1SMC40CA	40	44.4	51.1	1.0	5.0	64.5	23.2	CBFR
1SMC43CA	43	47.8	54.9	1.0	5.0	69.4	21.6	CBFT
1SMC45CA	45	50.0	57.5	1.0	5.0	72.7	20.6	CBFV
1SMC48CA	48	53.3	61.3	1.0	5.0	77.4	19.4	CBFX
1SMC51CA	51	56.7	65.2	1.0	5.0	82.4	18.2	CBFZ
1SMC54CA	54	60.0	69.0	1.0	5.0	87.1	17.2	CBGE
1SMC58CA	58	64.4	74.1	1.0	5.0	93.6	16.0	CBGG
1SMC60CA	60	66.7	76.7	1.0	5.0	96.8	15.5	CBGK
1SMC64CA	64	71.1	81.8	1.0	5.0	103	14.6	CBGM
1SMC70CA	70	77.8	89.5	1.0	5.0	113	13.3	CBGP
1SMC75CA	75	83.3	95.8	1.0	5.0	121	12.4	CBGR
1SMC78CA	78	86.7	99.7	1.0	5.0	126	11.4	CBGT
1SMC85CA	85	94.4	108.2	1.0	5.0	137	10.4	CBGV
1SMC90CA	90	100.0	115.5	1.0	5.0	146	10.3	CBGX
1SMC100CA	100	111.0	128.0	1.0	5.0	162	9.3	CBGZ
1SMC110CA	110	122.0	140.5	1.0	5.0	177	8.4	CBHE
1SMC120CA	120	133.0	153.0	1.0	5.0	193	7.9	CBHG
1SMC130CA	130	144.0	165.5	1.0	5.0	209	7.2	CBHK
1SMC150CA	150	167.0	192.5	1.0	5.0	243	6.2	CBHM
1SMC160CA	160	178.0	205.0	1.0	5.0	259	5.8	CBHP
1SMC170CA	170	189.0	217.5	1.0	5.0	275	5.5	CBHR

All Dimensions in Inches (mm).

