


NEW 1.5SMC6.8CA
THRU
1.5SMC200CA



**BI-DIRECTIONAL
GLASS PASSIVATED JUNCTION
TRANSIENT VOLTAGE SUPPRESSOR
1500 WATTS, 6.8 THRU 200 VOLTS**

CentralTM
Semiconductor Corp.

DESCRIPTION

The CENTRAL SEMICONDUCTOR 1.5SMC6.8CA 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 1.5SMC6.8A Series data sheet.



Specified by
BREAKDOWN
VOLTAGE

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

| | SYMBOL | UNITS |
|---|----------------|--------------------------------|
| Peak Power Dissipation | P_{PM} | 1500 W |
| Peak Forward Surge Current (JEDEC Method) | I_{FSM} | 200 A |
| Operating and Storage Junction Temperature | T_J, T_{stg} | -65 to +150 $^{\circ}\text{C}$ |

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$)

| TYPE NO. | BREAKDOWN VOLTAGE | | | | WORKING PEAK REVERSE VOLTAGE V_{RWM} VOLTS | MAXIMUM REVERSE LEAKAGE @ V_{RWM} I_R μA | MAXIMUM REVERSE SURGE CURRENT I_{RSM} A | MAXIMUM REVERSE VOLTAGE @ I_{RSM} V_{RSM} VOLTS | MAXIMUM TEMP. COEFFICIENT $\%/^{\circ}\text{C}$ | MARKING CODE |
|-------------|-------------------|-----|------|---------------|---|--|--|--|--|-----------------|
| | V_{BR} | | | $@ I_T$ mA | | | | | | |
| | VOLTS | | | | | | | | | |
| | MIN | NOM | MAX | | | | | | | |
| 1.5SMC6.8CA | 6.45 | 6.8 | 7.14 | 10 | 5.8 | 1000 | 143 | 10.5 | 0.057 | C6V8C |
| 1.5SMC7.5CA | 7.13 | 7.5 | 7.88 | 10 | 6.4 | 500 | 132 | 11.3 | 0.061 | C7V5C |
| 1.5SMC8.2CA | 7.79 | 8.2 | 8.61 | 10 | 7.02 | 200 | 124 | 12.1 | 0.065 | C8V2C |
| 1.5SMC9.1CA | 8.65 | 9.1 | 9.55 | 1 | 7.78 | 50 | 112 | 13.4 | 0.068 | C9V1C |
| 1.5SMC10CA | 9.5 | 10 | 10.5 | 1 | 8.55 | 10 | 103 | 14.5 | 0.073 | C10C |
| 1.5SMC11CA | 10.5 | 11 | 11.6 | 1 | 9.4 | 5 | 96 | 15.6 | 0.075 | C11C |
| 1.5SMC12CA | 11.4 | 12 | 12.6 | 1 | 10.2 | 5 | 90 | 16.7 | 0.078 | C12C |
| 1.5SMC13CA | 12.4 | 13 | 13.7 | 1 | 11.1 | 5 | 82 | 18.2 | 0.081 | C13C |
| 1.5SMC15CA | 14.3 | 15 | 15.8 | 1 | 12.8 | 5 | 71 | 21.2 | 0.084 | C15C |
| 1.5SMC16CA | 15.2 | 16 | 16.8 | 1 | 13.6 | 5 | 67 | 22.5 | 0.086 | C16C |
| 1.5SMC18CA | 17.1 | 18 | 18.9 | 1 | 15.3 | 5 | 59.5 | 25.2 | 0.088 | C18C |
| 1.5SMC20CA | 19.0 | 20 | 21.0 | 1 | 17.1 | 5 | 54 | 27.7 | 0.090 | C20C |

| TYPE NO. | BREAKDOWN VOLTAGE | | | | WORKING PEAK REVERSE VOLTAGE | MAXIMUM REVERSE LEAKAGE VOLTAGE @ V_{RWM} | MAXIMUM REVERSE SURGE CURRENT I_{RSM} | MAXIMUM REVERSE VOLTAGE @ I_{RSM} | MAXIMUM TEMP. COEFFICIENT | MARKING CODE |
|-------------|-------------------|-----|-------|--------|---------------------------------------|---|---|--|---------------------------------|-----------------|
| | V_{BR} | | | $@I_T$ | | | | | | |
| | VOLTS | | | | | | | | | |
| | MIN | NOM | MAX | | | | | | | |
| 1.5SMC22CA | 20.9 | 22 | 23.1 | 1 | 18.8 | 5 | 49 | 30.6 | 0.092 | C22C |
| 1.5SMC24CA | 22.8 | 24 | 25.2 | 1 | 20.5 | 5 | 45 | 33.2 | 0.094 | C24C |
| 1.5SMC27CA | 25.7 | 27 | 28.4 | 1 | 23.1 | 5 | 40 | 37.5 | 0.096 | C27C |
| 1.5SMC30CA | 28.5 | 30 | 31.5 | 1 | 25.6 | 5 | 36 | 41.4 | 0.097 | C30C |
| 1.5SMC33CA | 31.4 | 33 | 34.7 | 1 | 28.2 | 5 | 33 | 45.7 | 0.098 | C33C |
| 1.5SMC36CA | 34.2 | 36 | 37.8 | 1 | 30.8 | 5 | 30 | 49.9 | 0.099 | C36C |
| 1.5SMC39CA | 37.1 | 39 | 41 | 1 | 33.3 | 5 | 28 | 53.9 | 0.100 | C39C |
| 1.5SMC43CA | 40.9 | 43 | 45.2 | 1 | 36.8 | 5 | 25.3 | 59.3 | 0.101 | C43C |
| 1.5SMC47CA | 44.7 | 47 | 49.4 | 1 | 40.2 | 5 | 23.2 | 64.8 | 0.101 | C47C |
| 1.5SMC51CA | 48.5 | 51 | 53.6 | 1 | 43.6 | 5 | 21.4 | 70.1 | 0.102 | C51C |
| 1.5SMC56CA | 53.2 | 56 | 58.8 | 1 | 47.8 | 5 | 19.5 | 77 | 0.103 | C56C |
| 1.5SMC62CA | 58.9 | 62 | 65.1 | 1 | 53.0 | 5 | 17.7 | 85 | 0.104 | C62C |
| 1.5SMC68CA | 64.6 | 68 | 71.4 | 1 | 58.1 | 5 | 16.3 | 92 | 0.104 | C68C |
| 1.5SMC75CA | 71.3 | 75 | 78.8 | 1 | 64.1 | 5 | 14.6 | 103 | 0.105 | C75C |
| 1.5SMC82CA | 77.9 | 82 | 86.1 | 1 | 70.1 | 5 | 13.3 | 113 | 0.105 | C82C |
| 1.5SMC91CA | 86.5 | 91 | 95.5 | 1 | 77.8 | 5 | 12 | 125 | 0.106 | C91C |
| 1.5SMC100CA | 95.0 | 100 | 105 | 1 | 85.5 | 5 | 11 | 137 | 0.106 | C100C |
| 1.5SMC110CA | 104.5 | 110 | 115.5 | 1 | 94.0 | 5 | 9.9 | 152 | 0.107 | C110C |
| 1.5SMC120CA | 114 | 120 | 126 | 1 | 102 | 5 | 9.1 | 165 | 0.107 | C120C |
| 1.5SMC130CA | 123.5 | 130 | 136.5 | 1 | 111 | 5 | 8.4 | 179 | 0.107 | C130C |
| 1.5SMC150CA | 142.5 | 150 | 157.5 | 1 | 128 | 5 | 7.2 | 207 | 0.108 | C150C |
| 1.5SMC160CA | 152 | 160 | 168 | 1 | 136 | 5 | 6.8 | 219 | 0.108 | C160C |
| 1.5SMC170CA | 161.5 | 170 | 178.5 | 1 | 145 | 5 | 6.4 | 234 | 0.108 | C170C |
| 1.5SMC180CA | 171 | 180 | 189 | 1 | 154 | 5 | 6.1 | 246 | 0.108 | C180C |
| 1.5SMC200CA | 190 | 200 | 210 | 1 | 171 | 5 | 5.5 | 274 | 0.108 | C200C |

All Dimensions in Inches (mm).

