# 1.5SMC6.8A THRU 1.5SMC200A

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



**SMC CASE**

Specified by BREAKDOWN VOLTAGE

Central™ Semiconductor Corp.

## DESCRIPTION

The CENTRAL SEMICONDUCTOR 1.5SMC6.8A Series types are Surface Mount Uni-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 Bi-directional devices, please refer to the 1.5SMC6.8CA Series data sheet.

## MAXIMUM RATINGS ($T_A$=25°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 | °C |

## ELECTRICAL CHARACTERISTICS ($T_A$=25°C )

| TYPE NO. | BREAKDOWN VOLTAGE | | | | WORKING PEAK REVERSE VOLTAGE | MAXIMUM REVERSE LEAKAGE | MAXIMUM REVERSE SURGE CURRENT | MAXIMUM REVERSE VOLTAGE | MAXIMUM TEMP. COEFFICIENT | MARKING CODE |
|---|---|---|---|---|---|---|---|---|---|---|
| | $V_{BR}$ | | | @$I_T$ | $V_{RWM}$ | @$V_{RWM}$ | | @$I_{RSM}$ | | |
| | VOLTS | | | | | $I_R$ | $I_{RSM}$ | $V_{RSM}$ | | |
| | MIN | NOM | MAX | mA | VOLTS | μA | A | VOLTS | %/°C | |
| 1.5SMC6.8A | 6.45 | 6.8 | 7.14 | 10 | 5.8 | 1000 | 143 | 10.5 | 0.057 | C6V8A |
| 1.5SMC7.5A | 7.13 | 7.5 | 7.88 | 10 | 6.4 | 500 | 132 | 11.3 | 0.061 | C7V5A |
| 1.5SMC8.2A | 7.79 | 8.2 | 8.61 | 10 | 7.02 | 200 | 124 | 12.1 | 0.065 | C8V2A |
| 1.5SMC9.1A | 8.65 | 9.1 | 9.55 | 1 | 7.78 | 50 | 112 | 13.4 | 0.068 | C9V1A |
| 1.5SMC10A | 9.5 | 10 | 10.5 | 1 | 8.55 | 10 | 103 | 14.5 | 0.073 | C10A |
| 1.5SMC11A | 10.5 | 11 | 11.6 | 1 | 9.4 | 5 | 96 | 15.6 | 0.075 | C11A |
| 1.5SMC12A | 11.4 | 12 | 12.6 | 1 | 10.2 | 5 | 90 | 16.7 | 0.078 | C12A |
| 1.5SMC13A | 12.4 | 13 | 13.7 | 1 | 11.1 | 5 | 82 | 18.2 | 0.081 | C13A |
| 1.5SMC15A | 14.3 | 15 | 15.8 | 1 | 12.8 | 5 | 71 | 21.2 | 0.084 | C15A |
| 1.5SMC16A | 15.2 | 16 | 16.8 | 1 | 13.6 | 5 | 67 | 22.5 | 0.086 | C16A |
| 1.5SMC18A | 17.1 | 18 | 18.9 | 1 | 15.3 | 5 | 59.5 | 25.2 | 0.088 | C18A |
| 1.5SMC20A | 19.0 | 20 | 21.0 | 1 | 17.1 | 5 | 54 | 27.7 | 0.090 | C20A |

| TYPE NO. | BREAKDOWN VOLTAGE | | | | WORKING PEAK REVERSE VOLTAGE | MAXIMUM REVERSE LEAKAGE @$V_{RWM}$ | MAXIMUM REVERSE SURGE CURRENT | MAXIMUM REVERSE VOLTAGE @$I_{RSM}$ | MAXIMUM TEMP. COEFFICIENT | MARKING CODE |
|---|---|---|---|---|---|---|---|---|---|---|
| | $V_{BR}$ | | | @$I_T$ | $V_{RWM}$ | $I_R$ | $I_{RSM}$ | $V_{RSM}$ | | |
| | VOLTS | | | | | | | | | |
| | MIN | NOM | MAX | mA | VOLTS | μA | A | VOLTS | %/°C | |
| **1.5SMC22A** | 20.9 | 22 | 23.1 | 1 | 18.8 | 5 | 49 | 30.6 | 0.092 | C22A |
| **1.5SMC24A** | 22.8 | 24 | 25.2 | 1 | 20.5 | 5 | 45 | 33.2 | 0.094 | C24A |
| **1.5SMC27A** | 25.7 | 27 | 28.4 | 1 | 23.1 | 5 | 40 | 37.5 | 0.096 | C27A |
| **1.5SMC30A** | 28.5 | 30 | 31.5 | 1 | 25.6 | 5 | 36 | 41.4 | 0.097 | C30A |
| **1.5SMC33A** | 31.4 | 33 | 34.7 | 1 | 28.2 | 5 | 33 | 45.7 | 0.098 | C33A |
| **1.5SMC36A** | 34.2 | 36 | 37.8 | 1 | 30.8 | 5 | 30 | 49.9 | 0.099 | C36A |
| **1.5SMC39A** | 37.1 | 39 | 41 | 1 | 33.3 | 5 | 28 | 53.9 | 0.100 | C39A |
| **1.5SMC43A** | 40.9 | 43 | 45.2 | 1 | 36.8 | 5 | 25.3 | 59.3 | 0.101 | C43A |
| **1.5SMC47A** | 44.7 | 47 | 49.4 | 1 | 40.2 | 5 | 23.2 | 64.8 | 0.101 | C47A |
| **1.5SMC51A** | 48.5 | 51 | 53.6 | 1 | 43.6 | 5 | 21.4 | 70.1 | 0.102 | C51A |
| **1.5SMC56A** | 53.2 | 56 | 58.8 | 1 | 47.8 | 5 | 19.5 | 77 | 0.103 | C56A |
| **1.5SMC62A** | 58.9 | 62 | 65.1 | 1 | 53.0 | 5 | 17.7 | 85 | 0.104 | C62A |
| **1.5SMC68A** | 64.6 | 68 | 71.4 | 1 | 58.1 | 5 | 16.3 | 92 | 0.104 | C68A |
| **1.5SMC75A** | 71.3 | 75 | 78.8 | 1 | 64.1 | 5 | 14.6 | 103 | 0.105 | C75A |
| **1.5SMC82A** | 77.9 | 82 | 86.1 | 1 | 70.1 | 5 | 13.3 | 113 | 0.105 | C82A |
| **1.5SMC91A** | 86.5 | 91 | 95.5 | 1 | 77.8 | 5 | 12 | 125 | 0.106 | C91A |
| **1.5SMC100A** | 95.0 | 100 | 105 | 1 | 85.5 | 5 | 11 | 137 | 0.106 | C100A |
| **1.5SMC110A** | 104.5 | 110 | 115.5 | 1 | 94.0 | 5 | 9.9 | 152 | 0.107 | C110A |
| **1.5SMC120A** | 114 | 120 | 126 | 1 | 102 | 5 | 9.1 | 165 | 0.107 | C120A |
| **1.5SMC130A** | 123.5 | 130 | 136.5 | 1 | 111 | 5 | 8.4 | 179 | 0.107 | C130A |
| **1.5SMC150A** | 142.5 | 150 | 157.5 | 1 | 128 | 5 | 7.2 | 207 | 0.108 | C150A |
| **1.5SMC160A** | 152 | 160 | 168 | 1 | 136 | 5 | 6.8 | 219 | 0.108 | C160A |
| **1.5SMC170A** | 161.5 | 170 | 178.5 | 1 | 145 | 5 | 6.4 | 234 | 0.108 | C170A |
| **1.5SMC180A** | 171 | 180 | 189 | 1 | 154 | 5 | 6.1 | 246 | 0.108 | C180A |
| **1.5SMC200A** | 190 | 200 | 210 | 1 | 171 | 5 | 5.5 | 274 | 0.108 | C200A |

All Dimensions in Inches (mm).

TOP VIEW

