

1.5SMC6.8A
THRU
1.5SMC220A



**SURFACE MOUNT SILICON
UNI-DIRECTIONAL
GLASS PASSIVATED JUNCTION
TRANSIENT VOLTAGE SUPPRESSORS
1500 WATT, 6.8 THRU 220 VOLT**



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 1.5SMC6.8A series devices 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.

MARKING CODE: SEE ELECTRICAL CHARACTERISTICS TABLE



• This series is UL listed, UL file number E130224

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

Peak Power Dissipation (Note 1)
Peak Forward Surge Current (JEDEC Method)
Operating and Storage Junction Temperature

SYMBOL

P_{PK} 1500
 I_{FSM} 200
 T_J, T_{stg} -65 to +150

UNITS

W
A
 $^\circ\text{C}$

ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

| TYPE | BREAKDOWN VOLTAGE | | | TEST CURRENT I_T mA | WORKING PEAK REVERSE VOLTAGE V_{RWM} V | MAXIMUM REVERSE LEAKAGE CURRENT $I_R @ V_{RWM}$ μA | MAXIMUM REVERSE SURGE CURRENT (Note 1) I_{RSM} A | MAXIMUM REVERSE VOLTAGE $V_{RSM} @ I_{RSM}$ V | MAXIMUM TEMPERATURE COEFFICIENT $\theta_{V_{BR}}$ % / $^\circ\text{C}$ | MARKING CODE |
|------------|-------------------|-------|-------|-----------------------------|--|---|--|---|--|--------------|
| | $V_{BR} @ I_T$ | | | | | | | | | |
| | MIN V | NOM V | MAX V | | | | | | | |
| 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 | 1.0 | 7.78 | 50 | 112 | 13.4 | 0.068 | C9V1A |
| 1.5SMC10A | 9.5 | 10 | 10.5 | 1.0 | 8.55 | 10 | 103 | 14.5 | 0.073 | C10A |
| 1.5SMC11A | 10.5 | 11 | 11.6 | 1.0 | 9.4 | 5 | 96 | 15.6 | 0.075 | C11A |
| 1.5SMC12A | 11.4 | 12 | 12.6 | 1.0 | 10.2 | 5 | 90 | 16.7 | 0.078 | C12A |
| 1.5SMC13A | 12.4 | 13 | 13.7 | 1.0 | 11.1 | 5 | 82 | 18.2 | 0.081 | C13A |
| 1.5SMC15A | 14.3 | 15 | 15.8 | 1.0 | 12.8 | 5 | 71 | 21.2 | 0.084 | C15A |
| 1.5SMC16A | 15.2 | 16 | 16.8 | 1.0 | 13.6 | 5 | 67 | 22.5 | 0.086 | C16A |
| 1.5SMC18A | 17.1 | 18 | 18.9 | 1.0 | 15.3 | 5 | 59.5 | 25.2 | 0.088 | C18A |
| 1.5SMC20A | 19.0 | 20 | 21.0 | 1.0 | 17.1 | 5 | 54 | 27.7 | 0.090 | C20A |
| 1.5SMC22A | 20.9 | 22 | 23.1 | 1.0 | 18.8 | 5 | 49 | 30.6 | 0.092 | C22A |
| 1.5SMC24A | 22.8 | 24 | 25.2 | 1.0 | 20.5 | 5 | 45 | 33.2 | 0.094 | C24A |
| 1.5SMC27A | 25.7 | 27 | 28.4 | 1.0 | 23.1 | 5 | 40 | 37.5 | 0.096 | C27A |
| 1.5SMC30A | 28.5 | 30 | 31.5 | 1.0 | 25.6 | 5 | 36 | 41.4 | 0.097 | C30A |
| 1.5SMC33A | 31.4 | 33 | 34.7 | 1.0 | 28.2 | 5 | 33 | 45.7 | 0.098 | C33A |
| 1.5SMC36A | 34.2 | 36 | 37.8 | 1.0 | 30.8 | 5 | 30 | 49.9 | 0.099 | C36A |
| 1.5SMC39A | 37.1 | 39 | 41 | 1.0 | 33.3 | 5 | 28 | 53.9 | 0.100 | C39A |

Notes: (1) Non-repetitive 10x1,000 μs pulse.

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ELECTRICAL CHARACTERISTICS - Continued: ($T_A=25^\circ\text{C}$ unless otherwise noted)

| TYPE | BREAKDOWN VOLTAGE | | | TEST CURRENT | WORKING PEAK REVERSE VOLTAGE | MAXIMUM REVERSE LEAKAGE CURRENT | MAXIMUM REVERSE SURGE CURRENT (Note 1) | MAXIMUM REVERSE VOLTAGE | MAXIMUM TEMPERATURE COEFFICIENT | MARKING CODE |
|------------|-------------------|-------|-------|--------------|------------------------------|----------------------------------|--|--------------------------|---|--------------|
| | $V_{BR} @ I_T$ | | | | | | | | | |
| | MIN V | NOM V | MAX V | I_T mA | V_{RWM} V | $I_R @ V_{RWM}$ μA | I_{RSM} A | $V_{RSM} @ I_{RSM}$ V | θV_{BR} % / $^\circ\text{C}$ | |
| 1.5SMC43A | 40.9 | 43 | 45.2 | 1.0 | 36.8 | 5 | 25.3 | 59.3 | 0.101 | C43A |
| 1.5SMC47A | 44.7 | 47 | 49.4 | 1.0 | 40.2 | 5 | 23.2 | 64.8 | 0.101 | C47A |
| 1.5SMC51A | 48.5 | 51 | 53.6 | 1.0 | 43.6 | 5 | 21.4 | 70.1 | 0.102 | C51A |
| 1.5SMC56A | 53.2 | 56 | 58.8 | 1.0 | 47.8 | 5 | 19.5 | 77 | 0.103 | C56A |
| 1.5SMC62A | 58.9 | 62 | 65.1 | 1.0 | 53.0 | 5 | 17.7 | 85 | 0.104 | C62A |
| 1.5SMC68A | 64.6 | 68 | 71.4 | 1.0 | 58.1 | 5 | 16.3 | 92 | 0.104 | C68A |
| 1.5SMC75A | 71.3 | 75 | 78.8 | 1.0 | 64.1 | 5 | 14.6 | 103 | 0.105 | C75A |
| 1.5SMC82A | 77.9 | 82 | 86.1 | 1.0 | 70.1 | 5 | 13.3 | 113 | 0.105 | C82A |
| 1.5SMC91A | 86.5 | 91 | 95.5 | 1.0 | 77.8 | 5 | 12 | 125 | 0.106 | C91A |
| 1.5SMC100A | 95.0 | 100 | 105 | 1.0 | 85.5 | 5 | 11 | 137 | 0.106 | C100A |
| 1.5SMC110A | 104.5 | 110 | 115.5 | 1.0 | 94.0 | 5 | 9.9 | 152 | 0.107 | C110A |
| 1.5SMC120A | 114 | 120 | 126 | 1.0 | 102 | 5 | 9.1 | 165 | 0.107 | C120A |
| 1.5SMC130A | 123.5 | 130 | 136.5 | 1.0 | 111 | 5 | 8.4 | 179 | 0.107 | C130A |
| 1.5SMC150A | 142.5 | 150 | 157.5 | 1.0 | 128 | 5 | 7.2 | 207 | 0.108 | C150A |
| 1.5SMC160A | 152 | 160 | 168 | 1.0 | 136 | 5 | 6.8 | 219 | 0.108 | C160A |
| 1.5SMC170A | 161.5 | 170 | 178.5 | 1.0 | 145 | 5 | 6.4 | 234 | 0.108 | C170A |
| 1.5SMC180A | 171 | 180 | 189 | 1.0 | 154 | 5 | 6.1 | 246 | 0.108 | C180A |
| 1.5SMC200A | 190 | 200 | 210 | 1.0 | 171 | 5 | 5.5 | 274 | 0.108 | C200A |
| 1.5SMC220A | 209 | 220 | 231 | 1.0 | 185 | 5 | 4.6 | 328 | 0.108 | C220A |

SMC CASE - MECHANICAL OUTLINE



| SYMBOL | INCHES | | MILLIMETERS | |
|--------|--------|-------|-------------|------|
| | MIN | MAX | MIN | MAX |
| A | 0.030 | 0.060 | 0.76 | 1.52 |
| B | 0.002 | 0.008 | 0.05 | 0.20 |
| C | 0.305 | 0.320 | 7.75 | 8.13 |
| D | 0.006 | 0.012 | 0.15 | 0.31 |
| E | 0.079 | 0.103 | 2.00 | 2.62 |
| F | 0.260 | 0.280 | 6.60 | 7.11 |
| G | 0.108 | 0.128 | 2.75 | 3.25 |
| H | 0.220 | 0.245 | 5.59 | 6.22 |

SMC (REV: R2)

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TYPICAL ELECTRICAL CHARACTERISTICS



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OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

CONTACT US

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centrasemi.com

Worldwide Field Representatives:
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- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
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- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
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Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)

Email: org@lifeelectronics.ru