

3SMC5.0A  
THRU  
3SMC170A

SURFACE MOUNT SILICON  
UNI-DIRECTIONAL  
GLASS PASSIVATED JUNCTION  
TRANSIENT VOLTAGE SUPPRESSORS  
3000 WATT, 5.0 THRU 170 VOLT



www.centrasemi.com

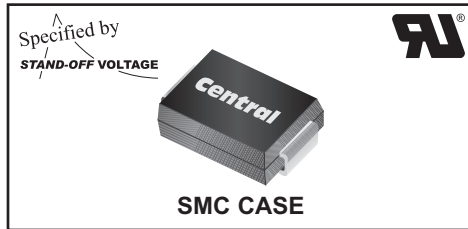
#### DESCRIPTION:

The CENTRAL SEMICONDUCTOR 3SMC5.0A 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 3SMC5.0CA 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

$P_{PK}$

$I_{FSM}$

$T_J, T_{stg}$

3000

200

-65 to +150

#### UNITS

W

A

$^\circ\text{C}$

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

| TYPE     | REVERSE<br>STAND-OFF<br>VOLTAGE | BREAKDOWN<br>VOLTAGE |          | TEST<br>CURRENT | MAXIMUM<br>REVERSE<br>LEAKAGE<br>CURRENT | MAXIMUM<br>CLAMPING<br>VOLTAGE | PEAK<br>PULSE<br>CURRENT<br>(Note 1) | MARKING<br>CODE |
|----------|---------------------------------|----------------------|----------|-----------------|------------------------------------------|--------------------------------|--------------------------------------|-----------------|
|          | $V_{RWM}$                       | $V_{BR} @ I_T$       |          | $I_T$           | $I_R @ V_{RWM}$                          | $V_C @ I_{pp}$                 | $I_{pp}$                             |                 |
|          | V                               | MIN<br>V             | MAX<br>V | mA              | $\mu\text{A}$                            | V                              | A                                    |                 |
| 3SMC5.0A | 5.0                             | 6.40                 | 7.25     | 10              | 1000                                     | 9.2                            | 326.0                                | CHDE            |
| 3SMC6.0A | 6.0                             | 6.67                 | 7.67     | 10              | 1000                                     | 10.3                           | 291.3                                | CHDG            |
| 3SMC6.5A | 6.5                             | 7.22                 | 8.30     | 10              | 500                                      | 11.2                           | 267.9                                | CHDK            |
| 3SMC7.0A | 7.0                             | 7.78                 | 8.95     | 10              | 200                                      | 12.0                           | 250.0                                | CHDM            |
| 3SMC7.5A | 7.5                             | 8.33                 | 9.58     | 1.0             | 100                                      | 12.9                           | 232.6                                | CHDP            |
| 3SMC8.0A | 8.0                             | 8.89                 | 10.23    | 1.0             | 50                                       | 13.6                           | 220.6                                | CHDR            |
| 3SMC8.5A | 8.5                             | 9.44                 | 10.82    | 1.0             | 25                                       | 14.4                           | 208.4                                | CHDT            |
| 3SMC9.0A | 9.0                             | 10.0                 | 11.5     | 1.0             | 10                                       | 15.4                           | 194.8                                | CHDV            |
| 3SMC10A  | 10                              | 11.1                 | 12.8     | 1.0             | 5.0                                      | 17.0                           | 176.4                                | CHDX            |
| 3SMC11A  | 11                              | 12.2                 | 14.0     | 1.0             | 5.0                                      | 18.2                           | 184.8                                | CHDZ            |
| 3SMC12A  | 12                              | 13.3                 | 15.3     | 1.0             | 5.0                                      | 19.9                           | 150.6                                | CHEE            |
| 3SMC13A  | 13                              | 14.4                 | 16.5     | 1.0             | 5.0                                      | 21.5                           | 139.4                                | CHEG            |
| 3SMC14A  | 14                              | 15.6                 | 17.9     | 1.0             | 5.0                                      | 23.2                           | 129.4                                | CHEK            |
| 3SMC15A  | 15                              | 16.7                 | 19.2     | 1.0             | 5.0                                      | 24.4                           | 123.0                                | CHEM            |
| 3SMC16A  | 16                              | 17.8                 | 20.5     | 1.0             | 5.0                                      | 26.0                           | 115.4                                | CHEP            |
| 3SMC17A  | 17                              | 18.9                 | 21.7     | 1.0             | 5.0                                      | 27.6                           | 106.6                                | CHER            |
| 3SMC18A  | 18                              | 20.0                 | 23.3     | 1.0             | 5.0                                      | 29.2                           | 102.8                                | CHET            |
| 3SMC20A  | 20                              | 22.2                 | 25.5     | 1.0             | 5.0                                      | 32.4                           | 92.6                                 | CHEV            |
| 3SMC22A  | 22                              | 24.4                 | 28.0     | 1.0             | 5.0                                      | 35.5                           | 84.4                                 | CHEX            |
| 3SMC24A  | 24                              | 26.7                 | 30.7     | 1.0             | 5.0                                      | 38.9                           | 77.2                                 | CHEZ            |
| 3SMC26A  | 26                              | 28.9                 | 33.2     | 1.0             | 5.0                                      | 42.1                           | 71.2                                 | CHFE            |
| 3SMC28A  | 28                              | 31.1                 | 35.8     | 1.0             | 5.0                                      | 45.4                           | 66.0                                 | CHFG            |
| 3SMC30A  | 30                              | 33.3                 | 38.3     | 1.0             | 5.0                                      | 48.4                           | 62.0                                 | CHFK            |

Notes: (1) Non-repetitive 10x1,000 $\mu\text{s}$  pulse

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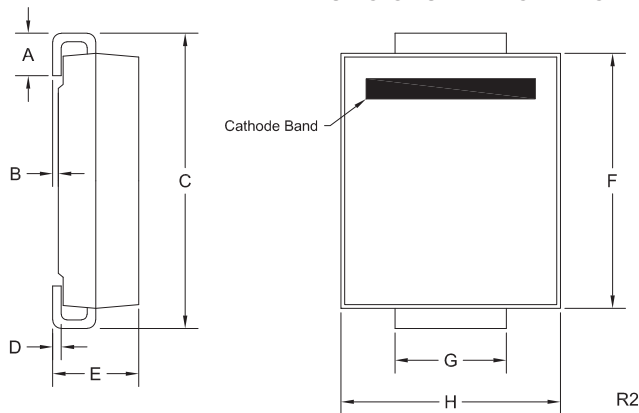
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**ELECTRICAL CHARACTERISTICS - Continued:** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

| TYPE     | REVERSE<br>STAND-OFF<br>VOLTAGE | BREAKDOWN<br>VOLTAGE |          | TEST<br>CURRENT | MAXIMUM<br>REVERSE<br>LEAKAGE<br>CURRENT | MAXIMUM<br>CLAMPING<br>VOLTAGE | PEAK<br>PULSE<br>CURRENT<br>(Note 1) | MARKING<br>CODE |
|----------|---------------------------------|----------------------|----------|-----------------|------------------------------------------|--------------------------------|--------------------------------------|-----------------|
|          | $V_{RWM}$                       | $V_{BR} @ I_T$       |          | $I_T$           | $I_R @ V_{RWM}$                          | $V_C @ I_{PP}$                 | $I_{PP}$                             |                 |
|          | V                               | MIN<br>V             | MAX<br>V | mA              | $\mu\text{A}$                            | V                              | A                                    |                 |
| 3SMC33A  | 33                              | 36.7                 | 42.2     | 1.0             | 5.0                                      | 53.3                           | 56.2                                 | CHFM            |
| 3SMC36A  | 36                              | 40.0                 | 46.0     | 1.0             | 5.0                                      | 58.1                           | 51.6                                 | CHFP            |
| 3SMC40A  | 40                              | 44.4                 | 51.1     | 1.0             | 5.0                                      | 64.5                           | 46.4                                 | CHFR            |
| 3SMC43A  | 43                              | 47.8                 | 54.9     | 1.0             | 5.0                                      | 69.4                           | 43.2                                 | CHFT            |
| 3SMC45A  | 45                              | 50.0                 | 57.5     | 1.0             | 5.0                                      | 72.7                           | 41.2                                 | CHFV            |
| 3SMC48A  | 48                              | 53.3                 | 61.3     | 1.0             | 5.0                                      | 77.4                           | 38.8                                 | CHFX            |
| 3SMC51A  | 51                              | 56.7                 | 65.2     | 1.0             | 5.0                                      | 82.4                           | 36.4                                 | CHFZ            |
| 3SMC54A  | 54                              | 60.0                 | 69.0     | 1.0             | 5.0                                      | 87.1                           | 34.4                                 | CHGE            |
| 3SMC58A  | 58                              | 64.4                 | 74.1     | 1.0             | 5.0                                      | 93.6                           | 32.0                                 | CHGG            |
| 3SMC60A  | 60                              | 66.7                 | 76.7     | 1.0             | 5.0                                      | 96.8                           | 31.0                                 | CHGK            |
| 3SMC64A  | 64                              | 71.1                 | 81.8     | 1.0             | 5.0                                      | 103                            | 29.2                                 | CHGM            |
| 3SMC70A  | 70                              | 77.8                 | 89.5     | 1.0             | 5.0                                      | 113                            | 26.6                                 | CHGP            |
| 3SMC75A  | 75                              | 83.3                 | 95.8     | 1.0             | 5.0                                      | 121                            | 24.8                                 | CHGR            |
| 3SMC78A  | 78                              | 86.7                 | 99.7     | 1.0             | 5.0                                      | 126                            | 22.8                                 | CHGT            |
| 3SMC85A  | 85                              | 94.4                 | 108.2    | 1.0             | 5.0                                      | 137                            | 20.8                                 | CHGV            |
| 3SMC90A  | 90                              | 100.0                | 115.5    | 1.0             | 5.0                                      | 146                            | 20.6                                 | CHGX            |
| 3SMC100A | 100                             | 111.0                | 128.0    | 1.0             | 5.0                                      | 162                            | 18.6                                 | CHGZ            |
| 3SMC110A | 110                             | 122.0                | 140.5    | 1.0             | 5.0                                      | 177                            | 16.8                                 | CHHE            |
| 3SMC120A | 120                             | 133.0                | 153.0    | 1.0             | 5.0                                      | 193                            | 15.6                                 | CHHG            |
| 3SMC130A | 130                             | 144.0                | 165.5    | 1.0             | 5.0                                      | 209                            | 14.4                                 | CHHK            |
| 3SMC150A | 150                             | 167.0                | 192.5    | 1.0             | 5.0                                      | 243                            | 12.4                                 | CHHM            |
| 3SMC160A | 160                             | 178.0                | 205.0    | 1.0             | 5.0                                      | 259                            | 11.6                                 | CHHP            |
| 3SMC170A | 170                             | 189.0                | 217.5    | 1.0             | 5.0                                      | 275                            | 11.0                                 | CHHR            |

### SMC CASE - MECHANICAL OUTLINE



| SYMBOL | DIMENSIONS |             | MIN  | MAX  |
|--------|------------|-------------|------|------|
|        | INCHES     | MILLIMETERS |      |      |
| 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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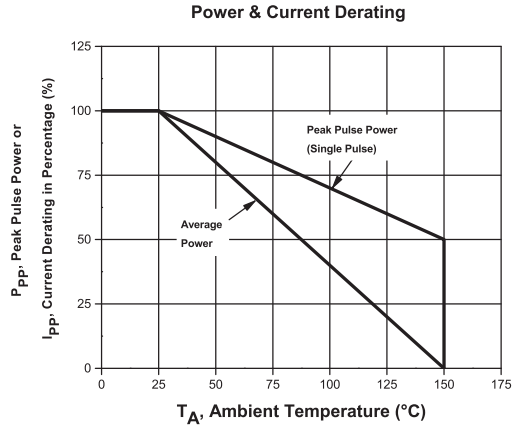
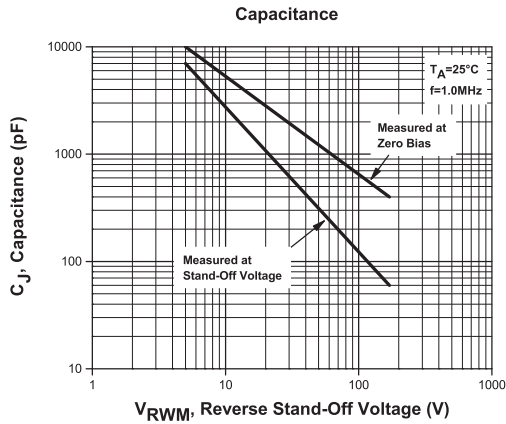
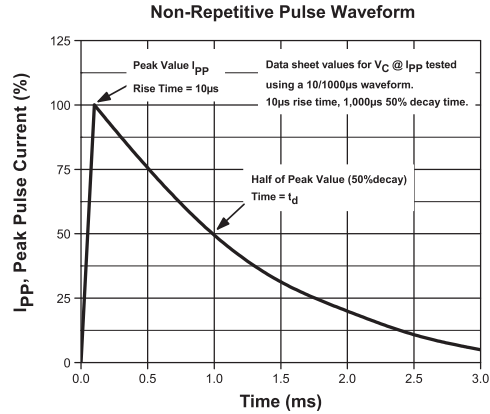
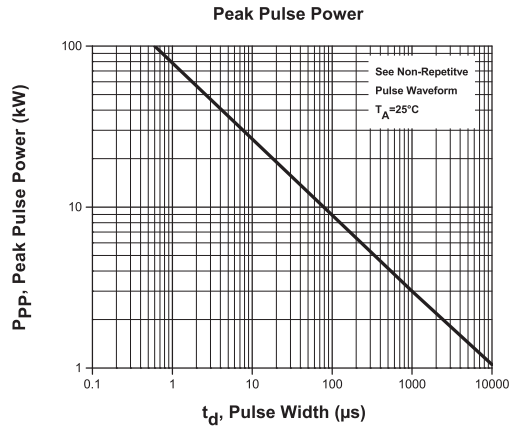
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## TYPICAL ELECTRICAL CHARACTERISTICS



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Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.