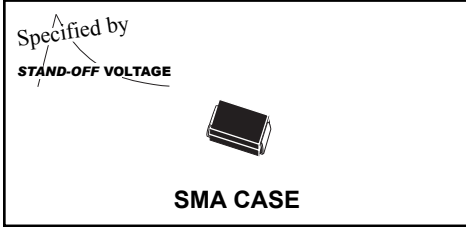


P4SMA5.0CA THRU P4SMA220CA
**BI-DIRECTIONAL
 GLASS PASSIVATED JUNCTION
 TRANSIENT VOLTAGE SUPPRESSOR
 400 WATTS, 5.0 THRU 220 VOLTS**



CentralTM Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR P4SMA5.0CA Series types are Surface Mount, Bi-Directional, Glass Passivated Junction, Transient Voltage Suppressors designed to protect 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 P4SMA5.0A Series data sheet.

MARKING CODE: SEE MARKING CODE ON ELECTRICAL CHARACTERISTICS TABLE

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

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

| SYMBOL | | UNITS |
|----------------|-------------|------------------|
| P_{DM} | 400 | W |
| I_{FSM} | 40 | A |
| T_J, T_{stg} | -65 to +150 | $^\circ\text{C}$ |

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

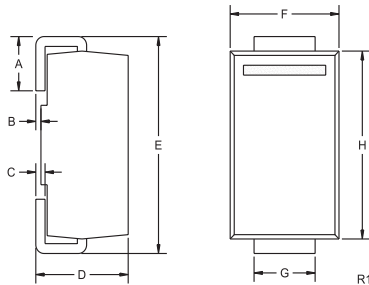
| TYPE NO. | REVERSE STAND-OFF VOLTAGE | BREAKDOWN VOLTAGE | | | MAXIMUM REVERSE LEAKAGE @ V_{RWM} | MAXIMUM CLAMPING VOLTAGE @ I_{PPM} | MAXIMUM PEAK PULSE CURRENT | MARKING CODE |
|------------|---------------------------|-------------------|-------|---------------|-------------------------------------|--------------------------------------|----------------------------|--------------|
| | | V_{BR} | | @ I_T | | | | |
| | | VOLTS | | | | | | |
| | | V_{RWM} | MIN | MAX | | | | |
| | VOLTS | | | μA | VOLTS | A | | |
| P4SMA5.0CA | 5.0 | 6.40 | 7.25 | 10.0 | 1600 | 9.2 | 43.5 | C4TE |
| P4SMA6.0CA | 6.0 | 6.67 | 7.67 | 10.0 | 1600 | 10.3 | 38.8 | C4TG |
| P4SMA6.5CA | 6.5 | 7.22 | 8.30 | 10.0 | 1000 | 11.2 | 35.7 | C4TK |
| P4SMA7.0CA | 7.0 | 7.78 | 8.95 | 10.0 | 400 | 12.0 | 33.3 | C4TM |
| P4SMA7.5CA | 7.5 | 8.33 | 9.58 | 1.0 | 200 | 12.9 | 31.0 | C4TP |
| P4SMA8.0CA | 8.0 | 8.89 | 10.23 | 1.0 | 100 | 13.6 | 29.4 | C4TR |
| P4SMA8.5CA | 8.5 | 9.44 | 10.82 | 1.0 | 20 | 14.4 | 27.7 | C4TT |
| P4SMA9.0CA | 9.0 | 10.0 | 11.5 | 1.0 | 5.0 | 15.4 | 26.0 | C4TV |
| P4SMA10CA | 10 | 11.1 | 12.8 | 1.0 | 1.0 | 17.0 | 23.5 | C4TX |
| P4SMA11CA | 11 | 12.2 | 14.0 | 1.0 | 1.0 | 18.2 | 22.0 | C4TZ |
| P4SMA12CA | 12 | 13.3 | 15.3 | 1.0 | 1.0 | 19.9 | 20.1 | C4UE |
| P4SMA13CA | 13 | 14.4 | 16.5 | 1.0 | 1.0 | 21.5 | 18.6 | C4UG |
| P4SMA14CA | 14 | 15.6 | 17.9 | 1.0 | 1.0 | 23.2 | 17.2 | C4UK |
| P4SMA15CA | 15 | 16.7 | 19.2 | 1.0 | 1.0 | 24.4 | 16.4 | C4UM |
| P4SMA16CA | 16 | 17.8 | 20.5 | 1.0 | 1.0 | 26.0 | 15.3 | C4UP |
| P4SMA17CA | 17 | 18.9 | 21.7 | 1.0 | 1.0 | 27.6 | 14.5 | C4UR |
| P4SMA18CA | 18 | 20.0 | 23.3 | 1.0 | 1.0 | 29.2 | 13.7 | C4UT |
| P4SMA20CA | 20 | 22.2 | 25.5 | 1.0 | 1.0 | 32.4 | 12.3 | C4UV |
| P4SMA22CA | 22 | 24.4 | 28.0 | 1.0 | 1.0 | 35.5 | 11.2 | C4UX |
| P4SMA24CA | 24 | 26.7 | 30.7 | 1.0 | 1.0 | 38.9 | 10.3 | C4UZ |
| P4SMA26CA | 26 | 28.9 | 33.2 | 1.0 | 1.0 | 42.1 | 9.5 | C4VE |
| P4SMA28CA | 28 | 31.1 | 35.8 | 1.0 | 1.0 | 45.4 | 8.8 | C4VG |
| P4SMA30CA | 30 | 33.3 | 38.3 | 1.0 | 1.0 | 48.4 | 8.3 | C4VK |

BI-DIRECTIONAL
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TRANSIENT VOLTAGE SUPPRESSOR
400 WATTS, 5.0 THRU 220 VOLTS

ELECTRICAL CHARACTERISTICS CONTINUED:

| TYPE NO. | REVERSE STAND-OFF VOLTAGE | BREAKDOWN VOLTAGE | | | MAXIMUM REVERSE LEAKAGE @ V_{RWM} | MAXIMUM CLAMPING VOLTAGE @ I_{PPM} | MAXIMUM PEAK PULSE CURRENT | MARKING CODE |
|------------|---------------------------------|-------------------|-------|---------|--|---|----------------------------------|-----------------|
| | | V_{BR} | | @ I_T | | | | |
| | V_{RWM} | VOLTS | | | I_R | V_C | I_{PPM} | |
| | VOLTS | MIN | MAX | mA | μA | VOLTS | A | |
| P4SMA33CA | 33 | 36.7 | 42.2 | 1.0 | 1.0 | 53.3 | 7.5 | C4VM |
| P4SMA36CA | 36 | 40.0 | 46.0 | 1.0 | 1.0 | 58.1 | 6.9 | C4VP |
| P4SMA40CA | 40 | 44.4 | 51.1 | 1.0 | 1.0 | 64.5 | 6.2 | C4VR |
| P4SMA43CA | 43 | 47.8 | 54.9 | 1.0 | 1.0 | 69.4 | 5.7 | C4VT |
| P4SMA45CA | 45 | 50.0 | 57.5 | 1.0 | 1.0 | 72.7 | 5.5 | C4VV |
| P4SMA48CA | 48 | 53.3 | 61.3 | 1.0 | 1.0 | 77.4 | 5.2 | C4VX |
| P4SMA51CA | 51 | 56.7 | 65.2 | 1.0 | 1.0 | 82.4 | 4.9 | C4VZ |
| P4SMA54CA | 54 | 60.0 | 69.0 | 1.0 | 1.0 | 87.1 | 4.6 | C4WE |
| P4SMA58CA | 58 | 64.4 | 74.1 | 1.0 | 1.0 | 93.6 | 4.3 | C4WG |
| P4SMA60CA | 60 | 66.7 | 76.7 | 1.0 | 1.0 | 96.8 | 4.1 | C4WK |
| P4SMA64CA | 64 | 71.1 | 81.8 | 1.0 | 1.0 | 103 | 3.9 | C4WM |
| P4SMA70CA | 70 | 77.8 | 89.5 | 1.0 | 1.0 | 113 | 3.5 | C4WP |
| P4SMA75CA | 75 | 83.3 | 95.8 | 1.0 | 1.0 | 121 | 3.3 | C4WR |
| P4SMA78CA | 78 | 86.7 | 99.7 | 1.0 | 1.0 | 126 | 2.2 | C4WT |
| P4SMA85CA | 85 | 94.4 | 108.2 | 1.0 | 1.0 | 137 | 2.9 | C4WV |
| P4SMA90CA | 90 | 100.0 | 115.5 | 1.0 | 1.0 | 146 | 2.7 | C4WX |
| P4SMA100CA | 100 | 111.0 | 128.0 | 1.0 | 1.0 | 162 | 2.5 | C4WZ |
| P4SMA110CA | 110 | 122.0 | 140.5 | 1.0 | 1.0 | 177 | 2.3 | C4XE |
| P4SMA120CA | 120 | 133.0 | 153.0 | 1.0 | 1.0 | 193 | 2.0 | C4XG |
| P4SMA130CA | 130 | 144.0 | 165.5 | 1.0 | 1.0 | 209 | 1.9 | C4XK |
| P4SMA150CA | 150 | 167.0 | 192.5 | 1.0 | 1.0 | 243 | 1.6 | C4XM |
| P4SMA160CA | 160 | 178.0 | 205.0 | 1.0 | 1.0 | 259 | 1.5 | C4XP |
| P4SMA170CA | 170 | 189.0 | 217.5 | 1.0 | 1.0 | 275 | 1.4 | C4XR |
| P4SMA180CA | 180 | 198.0 | 230.4 | 1.0 | 1.0 | 292 | 1.3 | C4XT |
| P4SMA190CA | 190 | 209.0 | 243.2 | 1.0 | 1.0 | 308 | 1.3 | C4XV |
| P4SMA200CA | 200 | 220.0 | 256.0 | 1.0 | 1.0 | 324 | 1.2 | C4XX |
| P4SMA210CA | 210 | 231.0 | 268.8 | 1.0 | 1.0 | 340 | 1.2 | C4XZ |
| P4SMA220CA | 220 | 242.0 | 281.6 | 1.0 | 1.0 | 356 | 1.1 | C4ZE |

SMA CASE - MECHANICAL OUTLINE



| SYMBOL | INCHES | | MILLIMETERS | |
|--------|--------|-------|-------------|------|
| | MIN | MAX | MIN | MAX |
| A | 0.030 | 0.060 | 0.76 | 1.52 |
| B | 0.004 | 0.008 | 0.10 | 0.20 |
| C | 0.006 | 0.012 | 0.15 | 0.30 |
| D | 0.078 | 0.103 | 1.98 | 2.62 |
| E | 0.188 | 0.220 | 4.78 | 5.59 |
| F | 0.090 | 0.115 | 2.29 | 2.92 |
| G | 0.050 | 0.070 | 1.27 | 1.78 |
| H | 0.157 | 0.181 | 3.99 | 4.60 |

SMA (REV: R1)

R0 (16-August 2004)