



Micro Commercial Components  
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# SMCJ5.0 THRU SMCJ170CA

## Features

- For surface mount application in order to optimize board space
- Low inductance
- Low profile package
- Built-in strain relief
- Glass passivated junction
- Excellent clamping capability
- Repetition Rate( duty cycle): 0.05%
- Fast response time: typical less than 1ps from 0V to BV min
- Typical  $I_B$  less than 1uA above 10V
- High temperature soldering: 260°C/10 seconds at terminals
- Plastic package has Underwrites Laboratory Flammability Classification 94V-O

## Mechanical Data

- CASE: JEDEC DO-214AB molded plastic body over passivated junction
- Terminals: solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes positive end( cathode) except Bi-directional types.
- Standard packaging: 16mm tape per ( EIA 481).
- Weight: 0.007 ounce, 0.21 gram

Maximum Ratings @ 25°C Unless Otherwise Specified

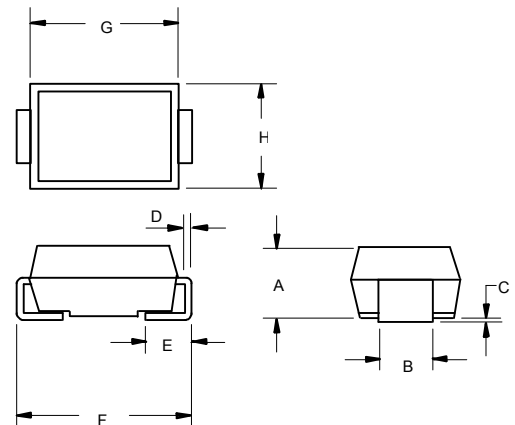
|                                                                   |                      |                 |       |
|-------------------------------------------------------------------|----------------------|-----------------|-------|
| Peak Pulse Current on 10/1000us waveform(Note1, Fig3)             | $I_{PPM}$            | See Table 1     | Amps  |
| Peak Pulse Power Dissipation on 10/1000us waveform(Note1,2, Fig1) | $P_{PPM}$            | Minimum 1500    | Watts |
| Peak forward surge current (JEDEC Method) (Note 2,3)              | $I_{FSM}$            | 200.0           | Amps  |
| Operation And Storage Temperature Range                           | $T_J$ ,<br>$T_{STG}$ | -55°C to +150°C |       |

### NOTES:

1. Non-repetitive current pulse per Fig.3 and derated above  $T_A=25^\circ\text{C}$  per Fig.2.
2. Mounted on 8.0mm<sup>2</sup> copper pads to each terminal.
3. 8.3ms, single half sine-wave or equivalent square wave, duty cycle=4 pulses per. Minutes maximum.

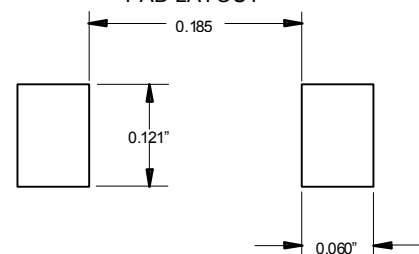
## Transient Voltage Suppressor 5.0 to 170 Volts 1500 Watt

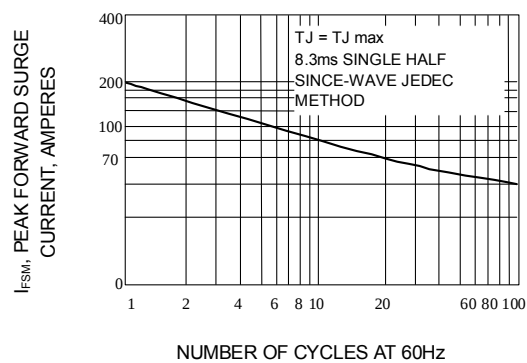
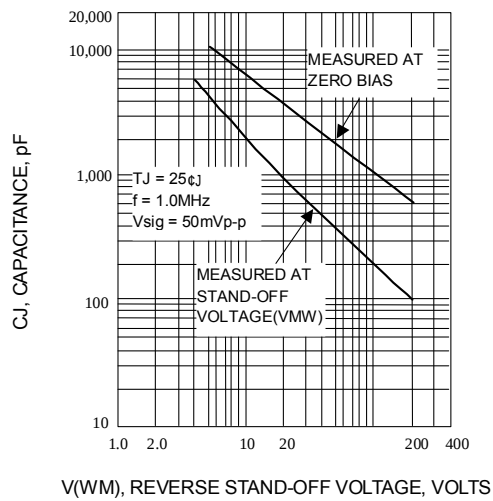
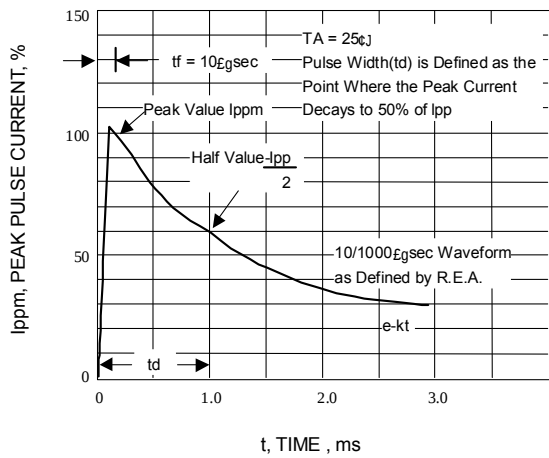
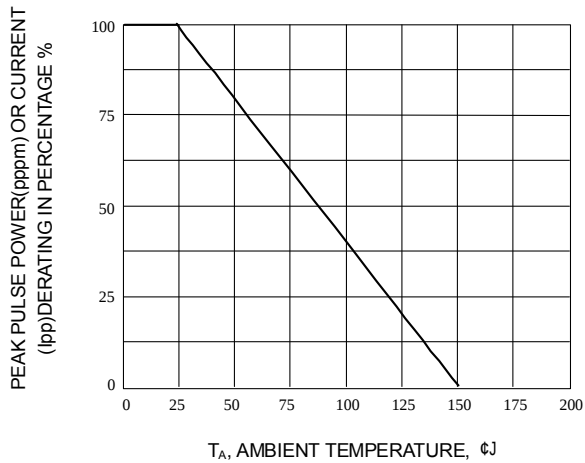
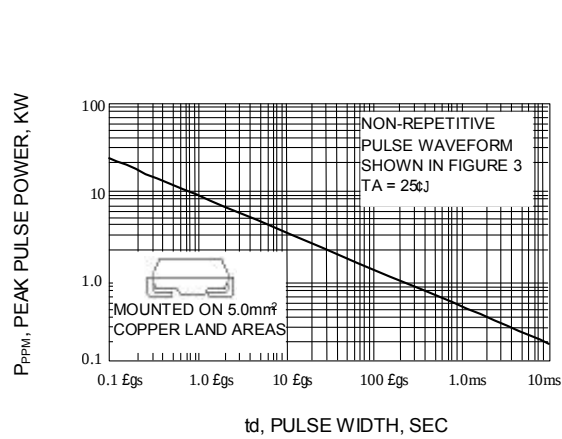
### DO-214AB (SMCJ) (LEAD FRAME)



| DIM | INCHES |      | MM    |       | NOTE |
|-----|--------|------|-------|-------|------|
|     | MIN    | MAX  | MIN   | MAX   |      |
| A   | .079   | .103 | 2.00  | 2.62  |      |
| B   | .108   | .128 | 2.75  | 3.25  |      |
| C   | .002   | .008 | 0.051 | 0.203 |      |
| D   | .006   | .012 | 0.152 | 0.305 |      |
| E   | .030   | .050 | 0.76  | 1.27  |      |
| F   | .305   | .320 | 7.75  | 8.13  |      |
| G   | .260   | .280 | 6.60  | 7.11  |      |
| H   | .220   | .245 | 5.59  | 6.22  |      |

### SUGGESTED SOLDER PAD LAYOUT





# SMCJ5.0 THRU SMCJ170CA

Electrical Characteristics @ 25°C Unless Otherwise Specified

| MCC PART<br>NUMBER | REVERSE<br>STAND-OFF<br>VOLTAGE<br>$V_{WM}$ | BREAKDOWN VOLTAGE<br>$V_{(BR)} @ I_T$<br>(VOLTS) |      |            | MAXIMUM<br>CLAMPING<br>VOLTAGE @ $I_{PP}$ | PEAK PULSE<br>CURRENT<br>$I_{PP}$ | MAXIMUM<br>REVERSE<br>LEAKAGE<br>@ $V_{WM}$<br>$I_b$ | MARKING<br>CODE |
|--------------------|---------------------------------------------|--------------------------------------------------|------|------------|-------------------------------------------|-----------------------------------|------------------------------------------------------|-----------------|
|                    | VOLTS                                       | MIN                                              | MAX  | $I_T$ (mA) | VOLTS                                     | (AMPS)                            | ( $\mu$ A)                                           |                 |
| SMCJ5.0            | 5.0                                         | 6.40                                             | 7.30 | 10         | 9.6                                       | 156.2                             | 1000                                                 | GDD             |
| SMCJ5.0A           | 5.0                                         | 6.40                                             | 7.00 | 10         | 9.2                                       | 163.0                             | 1000                                                 | GDE             |
| SMCJ6.0            | 6.0                                         | 6.67                                             | 8.15 | 10         | 11.4                                      | 131.6                             | 1000                                                 | GDF             |
| SMCJ6.0A           | 6.0                                         | 6.67                                             | 7.37 | 10         | 10.3                                      | 145.6                             | 1000                                                 | GDG             |
| SMCJ6.5            | 6.5                                         | 7.22                                             | 8.82 | 10         | 12.3                                      | 122.0                             | 500                                                  | GDH             |
| SMCJ6.5A           | 6.5                                         | 7.22                                             | 7.98 | 10         | 11.2                                      | 133.9                             | 500                                                  | GDK             |
| SMCJ7.0            | 7.0                                         | 7.78                                             | 9.51 | 10         | 13.3                                      | 112.8                             | 200                                                  | GDL             |
| SMCJ7.0A           | 7.0                                         | 7.78                                             | 8.60 | 10         | 12.0                                      | 125.0                             | 200                                                  | GDM             |
| SMCJ7.5            | 7.5                                         | 8.33                                             | 10.2 | 1          | 14.3                                      | 104.9                             | 100                                                  | GDN             |
| SMCJ7.5A           | 7.5                                         | 8.33                                             | 9.21 | 1          | 12.9                                      | 116.3                             | 100                                                  | GDP             |
| SMCJ8.0            | 8.0                                         | 8.89                                             | 10.9 | 1          | 15.0                                      | 100.0                             | 50                                                   | GDQ             |
| SMCJ8.0A           | 8.0                                         | 8.89                                             | 9.83 | 1          | 13.6                                      | 110.3                             | 50                                                   | GDR             |
| SMCJ8.5            | 8.5                                         | 9.44                                             | 11.5 | 1          | 15.9                                      | 94.3                              | 10                                                   | GDS             |
| SMCJ8.5A           | 8.5                                         | 9.44                                             | 10.4 | 1          | 14.4                                      | 104.2                             | 10                                                   | GDT             |
| SMCJ9.0            | 9.0                                         | 10.0                                             | 12.2 | 1          | 16.9                                      | 88.7                              | 5                                                    | GDU             |
| SMCJ9.0A           | 9.0                                         | 10.0                                             | 11.1 | 1          | 15.4                                      | 97.4                              | 5                                                    | GDV             |
| SMCJ10             | 10                                          | 11.1                                             | 13.6 | 1          | 18.8                                      | 79.8                              | 5                                                    | GDW             |
| SMCJ10A            | 10                                          | 11.1                                             | 12.3 | 1          | 17.0                                      | 88.2                              | 5                                                    | GDX             |
| SMCJ11             | 11                                          | 12.2                                             | 14.9 | 1          | 20.1                                      | 74.6                              | 5                                                    | GDY             |
| SMCJ11A            | 11                                          | 12.2                                             | 13.5 | 1          | 18.2                                      | 82.4                              | 5                                                    | GDZ             |
| SMCJ12             | 12                                          | 13.3                                             | 16.3 | 1          | 22.0                                      | 68.2                              | 5                                                    | GED             |
| SMCJ12A            | 12                                          | 13.3                                             | 14.7 | 1          | 19.9                                      | 75.3                              | 5                                                    | GEE             |
| SMCJ13             | 13                                          | 14.4                                             | 17.6 | 1          | 23.8                                      | 63.0                              | 5                                                    | GEF             |
| SMCJ13A            | 13                                          | 14.4                                             | 15.9 | 1          | 21.5                                      | 69.7                              | 5                                                    | GEG             |
| SMCJ14             | 14                                          | 15.6                                             | 19.1 | 1          | 25.8                                      | 58.1                              | 5                                                    | GEH             |
| SMCJ14A            | 14                                          | 15.6                                             | 17.2 | 1          | 23.2                                      | 64.7                              | 5                                                    | GEK             |
| SMCJ15             | 15                                          | 16.7                                             | 20.4 | 1          | 26.9                                      | 55.8                              | 5                                                    | GEL             |
| SMCJ15A            | 15                                          | 16.7                                             | 18.5 | 1          | 24.4                                      | 61.5                              | 5                                                    | GEM             |
| SMCJ16             | 16                                          | 17.8                                             | 21.8 | 1          | 28.8                                      | 52.1                              | 5                                                    | GEN             |
| SMCJ16A            | 16                                          | 17.8                                             | 19.7 | 1          | 26.0                                      | 57.7                              | 5                                                    | GEP             |
| SMCJ17             | 17                                          | 18.9                                             | 23.1 | 1          | 30.5                                      | 49.2                              | 5                                                    | GEQ             |
| SMCJ17A            | 17                                          | 18.9                                             | 20.9 | 1          | 27.6                                      | 53.3                              | 5                                                    | GER             |
| SMCJ18             | 18                                          | 20.0                                             | 24.4 | 1          | 32.2                                      | 46.6                              | 5                                                    | GES             |
| SMCJ18A            | 18                                          | 20.0                                             | 22.1 | 1          | 29.2                                      | 51.4                              | 5                                                    | GET             |
| SMCJ20             | 20                                          | 22.2                                             | 27.1 | 1          | 35.8                                      | 41.9                              | 5                                                    | GEU             |
| SMCJ20A            | 20                                          | 22.2                                             | 24.5 | 1          | 32.4                                      | 46.3                              | 5                                                    | GEV             |
| SMCJ22             | 22                                          | 24.4                                             | 29.8 | 1          | 39.4                                      | 38.1                              | 5                                                    | GEW             |
| SMCJ22A            | 22                                          | 24.4                                             | 26.9 | 1          | 35.5                                      | 42.2                              | 5                                                    | GEX             |
| SMCJ24             | 24                                          | 26.7                                             | 32.6 | 1          | 43.0                                      | 34.9                              | 5                                                    | GEY             |
| SMCJ24A            | 24                                          | 26.7                                             | 29.5 | 1          | 38.9                                      | 38.6                              | 5                                                    | GEZ             |
| SMCJ26             | 26                                          | 28.9                                             | 35.3 | 1          | 46.6                                      | 32.2                              | 5                                                    | GFD             |
| SMCJ26A            | 26                                          | 28.9                                             | 31.9 | 1          | 42.1                                      | 35.6                              | 5                                                    | GFE             |

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Electrical Characteristics @ 25°C Unless Otherwise Specified

| MCC PART<br>NUMBER | REVERSE<br>STAND-OFF<br>VOLTAGE<br>$V_{WM}$ | BREAKDOWN VOLTAGE<br>$V_{(BR)} @ I_T$<br>(VOLTS) |      |            | MAXIMUM<br>CLAMPING<br>VOLTAGE @ $I_{PP}$ | PEAK PULSE<br>CURRENT<br>$I_{PP}$ | MAXIMUM<br>REVERSE<br>LEAKAGE<br>@ $V_{WM}$<br>$I_b$ | MARKING<br>CODE |
|--------------------|---------------------------------------------|--------------------------------------------------|------|------------|-------------------------------------------|-----------------------------------|------------------------------------------------------|-----------------|
|                    | VOLTS                                       | MIN                                              | MAX  | $I_T$ (mA) | VOLTS                                     | (AMPS)                            | ( $\mu$ A)                                           |                 |
| SMCJ28             | 28                                          | 31.1                                             | 38.0 | 1          | 50.0                                      | 30.0                              | 5                                                    | GFF             |
| SMCJ28A            | 28                                          | 31.1                                             | 34.4 | 1          | 45.4                                      | 33.0                              | 5                                                    | GFG             |
| SMCJ30             | 30                                          | 33.3                                             | 40.7 | 1          | 53.5                                      | 28.0                              | 5                                                    | GFH             |
| SMCJ30A            | 30                                          | 33.3                                             | 36.8 | 1          | 48.4                                      | 31.0                              | 5                                                    | GFK             |
| SMCJ33             | 33                                          | 36.7                                             | 44.9 | 1          | 59.0                                      | 25.2                              | 5                                                    | GFL             |
| SMCJ33A            | 33                                          | 36.7                                             | 40.6 | 1          | 53.3                                      | 28.1                              | 5                                                    | GFM             |
| SMCJ36             | 36                                          | 40.0                                             | 48.9 | 1          | 64.3                                      | 23.3                              | 5                                                    | GFN             |
| SMCJ36A            | 36                                          | 40.0                                             | 44.2 | 1          | 58.1                                      | 25.8                              | 5                                                    | GFP             |
| SMCJ40             | 40                                          | 44.4                                             | 54.3 | 1          | 71.4                                      | 21.0                              | 5                                                    | GFQ             |
| SMCJ40A            | 40                                          | 44.4                                             | 49.1 | 1          | 64.5                                      | 23.2                              | 5                                                    | GFR             |
| SMCJ43             | 43                                          | 47.8                                             | 58.4 | 1          | 76.7                                      | 19.6                              | 5                                                    | GFS             |
| SMCJ43A            | 43                                          | 47.8                                             | 52.8 | 1          | 69.4                                      | 21.6                              | 5                                                    | GFT             |
| SMCJ45             | 45                                          | 50.0                                             | 61.1 | 1          | 80.3                                      | 18.7                              | 5                                                    | GFU             |
| SMCJ45A            | 45                                          | 50.0                                             | 55.3 | 1          | 72.7                                      | 20.6                              | 5                                                    | GFV             |
| SMCJ48             | 48                                          | 53.3                                             | 65.1 | 1          | 85.5                                      | 17.5                              | 5                                                    | GFW             |
| SMCJ48A            | 48                                          | 53.3                                             | 58.9 | 1          | 77.4                                      | 19.4                              | 5                                                    | GFX             |
| SMCJ51             | 51                                          | 56.7                                             | 69.3 | 1          | 91.1                                      | 18.5                              | 5                                                    | GFY             |
| SMCJ51A            | 51                                          | 56.7                                             | 62.7 | 1          | 82.4                                      | 18.2                              | 5                                                    | GFZ             |
| SMCJ54             | 54                                          | 60.0                                             | 73.3 | 1          | 96.3                                      | 15.6                              | 5                                                    | GGD             |
| SMCJ54A            | 54                                          | 60.0                                             | 66.3 | 1          | 87.1                                      | 17.2                              | 5                                                    | GGE             |
| SMCJ58             | 58                                          | 64.4                                             | 78.7 | 1          | 103                                       | 14.6                              | 5                                                    | GGF             |
| SMCJ58A            | 58                                          | 64.4                                             | 71.2 | 1          | 93.6                                      | 16.0                              | 5                                                    | GGG             |
| SMCJ60             | 60                                          | 66.7                                             | 81.5 | 1          | 107                                       | 14.0                              | 5                                                    | GGH             |
| SMCJ60A            | 60                                          | 66.7                                             | 73.7 | 1          | 96.8                                      | 15.5                              | 5                                                    | GGK             |
| SMCJ64             | 64                                          | 71.1                                             | 86.9 | 1          | 114                                       | 13.2                              | 5                                                    | GGL             |
| SMCJ64A            | 64                                          | 71.1                                             | 78.6 | 1          | 103                                       | 14.6                              | 5                                                    | GGM             |
| SMCJ70             | 70                                          | 77.8                                             | 95.1 | 1          | 125                                       | 12.0                              | 5                                                    | GGN             |
| SMCJ70A            | 70                                          | 77.8                                             | 86.0 | 1          | 113                                       | 13.3                              | 5                                                    | GGP             |
| SMCJ75             | 75                                          | 83.3                                             | 102  | 1          | 134                                       | 11.2                              | 5                                                    | GGQ             |
| SMCJ75A            | 75                                          | 83.3                                             | 92.1 | 1          | 121                                       | 12.4                              | 5                                                    | GGR             |
| SMCJ78             | 78                                          | 86.7                                             | 106  | 1          | 139                                       | 10.8                              | 5                                                    | GGS             |
| SMCJ78A            | 78                                          | 86.7                                             | 95.8 | 1          | 126                                       | 11.4                              | 5                                                    | GGT             |
| SMCJ85             | 85                                          | 94.4                                             | 115  | 1          | 151                                       | 9.9                               | 5                                                    | GGU             |
| SMCJ85A            | 85                                          | 94.4                                             | 104  | 1          | 137                                       | 10.4                              | 5                                                    | GGV             |
| SMCJ90             | 90                                          | 100                                              | 122  | 1          | 160                                       | 9.4                               | 5                                                    | GGW             |
| SMCJ90A            | 90                                          | 100                                              | 111  | 1          | 146                                       | 10.3                              | 5                                                    | GGX             |
| SMCJ100            | 100                                         | 111                                              | 136  | 1          | 179                                       | 8.4                               | 5                                                    | GGY             |
| SMCJ100A           | 100                                         | 111                                              | 123  | 1          | 162                                       | 9.3                               | 5                                                    | GGZ             |
| SMCJ110            | 110                                         | 122                                              | 149  | 1          | 196                                       | 7.7                               | 5                                                    | GHD             |
| SMCJ110A           | 110                                         | 122                                              | 135  | 1          | 177                                       | 8.4                               | 5                                                    | GHE             |
| SMCJ120            | 120                                         | 133                                              | 163  | 1          | 214                                       | 7.0                               | 5                                                    | GHF             |
| SMCJ120A           | 120                                         | 133                                              | 147  | 1          | 193                                       | 7.8                               | 5                                                    | GHG             |

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Electrical Characteristics @ 25°C Unless Otherwise Specified

| MCC PART<br>NUMBER | REVERSE<br>STAND-OFF<br>VOLTAGE<br>$V_{WM}$ | BREAKDOWN VOLTAGE<br>$V_{(BR)}$ @ $I_T$<br>(VOLTS) |     |            | MAXIMUM<br>CLAMPING<br>VOLTAGE @ $I_{PP}$ | PEAK PULSE<br>CURRENT<br>$I_{PP}$ | MAXIMUM<br>REVERSE<br>LEAKAGE<br>@ $V_{WM}$<br>$I_b$ | MARKING<br>CODE |
|--------------------|---------------------------------------------|----------------------------------------------------|-----|------------|-------------------------------------------|-----------------------------------|------------------------------------------------------|-----------------|
|                    | VOLTS                                       | MIN                                                | MAX | $I_T$ (mA) | VOLTS                                     | (AMPS)                            | ( $\mu$ A)                                           |                 |
| SMCJ130            | 130                                         | 144                                                | 176 | 1          | 231                                       | 6.5                               | 5                                                    | GHH             |
| SMCJ130A           | 130                                         | 144                                                | 159 | 1          | 209                                       | 7.2                               | 5                                                    | GHK             |
| SMCJ150            | 150                                         | 167                                                | 204 | 1          | 268                                       | 5.6                               | 5                                                    | GHL             |
| SMCJ150A           | 150                                         | 167                                                | 185 | 1          | 243                                       | 6.2                               | 5                                                    | GHM             |
| SMCJ160            | 160                                         | 178                                                | 218 | 1          | 287                                       | 5.2                               | 5                                                    | GHN             |
| SMCJ160A           | 160                                         | 178                                                | 197 | 1          | 259                                       | 5.8                               | 5                                                    | GHP             |
| SMCJ170            | 170                                         | 189                                                | 231 | 1          | 304                                       | 4.9                               | 5                                                    | GHQ             |
| SMCJ170A           | 170                                         | 189                                                | 209 | 1          | 275                                       | 5.5                               | 5                                                    | GHR             |

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Electrical Characteristics @ 25°C Unless Otherwise Specified

| MCC PART<br>NUMBER | REVERSE<br>STAND-OFF<br>VOLTAGE<br>$V_{WM}$ | BREAKDOWN VOLTAGE<br>$V_{(BR)} @ I_T$<br>(VOLTS) |      |            | MAXIMUM<br>CLAMPING<br>VOLTAGE @ $I_{PP}$ | PEAK PULSE<br>CURRENT<br>$I_{PP}$ | MAXIMUM<br>REVERSE<br>LEAKAGE<br>@ $V_{WM}$<br>$I_b$ | MARKING<br>CODE |
|--------------------|---------------------------------------------|--------------------------------------------------|------|------------|-------------------------------------------|-----------------------------------|------------------------------------------------------|-----------------|
|                    | VOLTS                                       | MIN                                              | MAX  | $I_T$ (mA) | VOLTS                                     | (AMPS)                            | ( $\mu$ A)                                           |                 |
| SMCJ5.0 C          | 5.0                                         | 6.40                                             | 7.30 | 10         | 9.6                                       | 156.2                             | 2000                                                 | BDD             |
| SMCJ5.0 CA         | 5.0                                         | 6.40                                             | 7.00 | 10         | 9.2                                       | 163.0                             | 2000                                                 | BDE             |
| SMCJ6.0 C          | 6.0                                         | 6.67                                             | 8.15 | 10         | 11.4                                      | 131.6                             | 2000                                                 | BDF             |
| SMCJ6.0 CA         | 6.0                                         | 6.67                                             | 7.37 | 10         | 10.3                                      | 145.6                             | 2000                                                 | BDG             |
| SMCJ6.5 C          | 6.5                                         | 7.22                                             | 8.82 | 10         | 12.3                                      | 122.0                             | 1000                                                 | BDH             |
| SMCJ6.5 CA         | 6.5                                         | 7.22                                             | 7.98 | 10         | 11.2                                      | 133.9                             | 1000                                                 | BDK             |
| SMCJ7.0 C          | 7.0                                         | 7.78                                             | 9.51 | 10         | 13.3                                      | 112.8                             | 400                                                  | BDL             |
| SMCJ7.0 CA         | 7.0                                         | 7.78                                             | 8.60 | 10         | 12.0                                      | 125.0                             | 400                                                  | BDM             |
| SMCJ7.5 C          | 7.5                                         | 8.33                                             | 10.2 | 1          | 14.3                                      | 104.9                             | 200                                                  | BDN             |
| SMCJ7.5 CA         | 7.5                                         | 8.33                                             | 9.21 | 1          | 12.9                                      | 116.3                             | 200                                                  | BDP             |
| SMCJ8.0 C          | 8.0                                         | 8.89                                             | 10.9 | 1          | 15.0                                      | 100.0                             | 100                                                  | BDQ             |
| SMCJ8.0 CA         | 8.0                                         | 8.89                                             | 9.83 | 1          | 13.6                                      | 110.3                             | 100                                                  | BDR             |
| SMCJ8.5 C          | 8.5                                         | 9.44                                             | 11.5 | 1          | 15.9                                      | 94.3                              | 20                                                   | BDS             |
| SMCJ8.5 CA         | 8.5                                         | 9.44                                             | 10.4 | 1          | 14.4                                      | 104.2                             | 20                                                   | BDT             |
| SMCJ9.0 C          | 9.0                                         | 10.0                                             | 12.2 | 1          | 16.9                                      | 88.7                              | 10                                                   | BDU             |
| SMCJ9.0 CA         | 9.0                                         | 10.0                                             | 11.1 | 1          | 15.4                                      | 97.4                              | 10                                                   | BDV             |
| SMCJ10 C           | 10                                          | 11.1                                             | 13.6 | 1          | 18.8                                      | 79.8                              | 5                                                    | BDW             |
| SMCJ10 CA          | 10                                          | 11.1                                             | 12.3 | 1          | 17.0                                      | 88.2                              | 5                                                    | BDX             |
| SMCJ11 C           | 11                                          | 12.2                                             | 14.9 | 1          | 20.1                                      | 74.6                              | 5                                                    | BDY             |
| SMCJ11 CA          | 11                                          | 12.2                                             | 13.5 | 1          | 18.2                                      | 82.4                              | 5                                                    | BDZ             |
| SMCJ12 C           | 12                                          | 13.3                                             | 16.3 | 1          | 22.0                                      | 68.2                              | 5                                                    | BED             |
| SMCJ12 CA          | 12                                          | 13.3                                             | 14.7 | 1          | 19.9                                      | 75.3                              | 5                                                    | BEE             |
| SMCJ13 C           | 13                                          | 14.4                                             | 17.6 | 1          | 23.8                                      | 63.0                              | 5                                                    | BEF             |
| SMCJ13 CA          | 13                                          | 14.4                                             | 15.9 | 1          | 21.5                                      | 69.7                              | 5                                                    | BEG             |
| SMCJ14 C           | 14                                          | 15.6                                             | 19.1 | 1          | 25.8                                      | 58.1                              | 5                                                    | BEH             |
| SMCJ14 CA          | 14                                          | 15.6                                             | 17.2 | 1          | 23.2                                      | 64.7                              | 5                                                    | BEK             |
| SMCJ15 C           | 15                                          | 16.7                                             | 20.4 | 1          | 26.9                                      | 55.8                              | 5                                                    | BEL             |
| SMCJ15 CA          | 15                                          | 16.7                                             | 18.5 | 1          | 24.4                                      | 61.5                              | 5                                                    | BEM             |
| SMCJ16 C           | 16                                          | 17.8                                             | 21.8 | 1          | 28.8                                      | 52.1                              | 5                                                    | BEN             |
| SMCJ16 CA          | 16                                          | 17.8                                             | 19.7 | 1          | 26.0                                      | 57.7                              | 5                                                    | BEP             |
| SMCJ17 C           | 17                                          | 18.9                                             | 23.1 | 1          | 30.5                                      | 49.2                              | 5                                                    | BEQ             |
| SMCJ17 CA          | 17                                          | 18.9                                             | 20.9 | 1          | 27.6                                      | 53.3                              | 5                                                    | BER             |
| SMCJ18 C           | 18                                          | 20.0                                             | 24.4 | 1          | 32.2                                      | 46.6                              | 5                                                    | BES             |
| SMCJ18 CA          | 18                                          | 20.0                                             | 22.1 | 1          | 29.2                                      | 51.4                              | 5                                                    | BET             |
| SMCJ20 C           | 20                                          | 22.2                                             | 27.1 | 1          | 35.8                                      | 41.9                              | 5                                                    | BEU             |
| SMCJ20 CA          | 20                                          | 22.2                                             | 24.5 | 1          | 32.4                                      | 46.3                              | 5                                                    | BEV             |
| SMCJ22 C           | 22                                          | 24.4                                             | 29.8 | 1          | 39.4                                      | 38.1                              | 5                                                    | BEW             |
| SMCJ22 CA          | 22                                          | 24.4                                             | 26.9 | 1          | 35.5                                      | 42.2                              | 5                                                    | BEX             |
| SMCJ24 C           | 24                                          | 26.7                                             | 32.6 | 1          | 43.0                                      | 34.9                              | 5                                                    | BEY             |
| SMCJ24 CA          | 24                                          | 26.7                                             | 29.5 | 1          | 38.9                                      | 38.6                              | 5                                                    | BEZ             |
| SMCJ26 C           | 26                                          | 28.9                                             | 35.3 | 1          | 46.6                                      | 32.2                              | 5                                                    | BFD             |
| SMCJ26 CA          | 26                                          | 28.9                                             | 31.9 | 1          | 42.1                                      | 35.6                              | 5                                                    | BFE             |

# SMCJ5.0 THRU SMCJ170CA

Electrical Characteristics @ 25°C Unless Otherwise Specified

| MCC PART<br>NUMBER | REVERSE<br>STAND-OFF<br>VOLTAGE<br>$V_{WM}$ | BREAKDOWN VOLTAGE<br>$V_{(BR)} @ I_T$<br>(VOLTS) |      |            | MAXIMUM<br>CLAMPING<br>VOLTAGE @ $I_{PP}$ | PEAK PULSE<br>CURRENT<br>$I_{PP}$ | MAXIMUM<br>REVERSE<br>LEAKAGE<br>@ $V_{WM}$<br>$I_b$ | MARKING<br>CODE |
|--------------------|---------------------------------------------|--------------------------------------------------|------|------------|-------------------------------------------|-----------------------------------|------------------------------------------------------|-----------------|
|                    | VOLTS                                       | MIN                                              | MAX  | $I_T$ (mA) | VOLTS                                     | (AMPS)                            | ( $\mu$ A)                                           |                 |
| SMCJ28C            | 28                                          | 31.1                                             | 38.0 | 1          | 50.0                                      | 30.0                              | 5                                                    | BFF             |
| SMCJ28CA           | 28                                          | 31.1                                             | 34.4 | 1          | 45.4                                      | 33.0                              | 5                                                    | BFG             |
| SMCJ30C            | 30                                          | 33.3                                             | 40.7 | 1          | 53.5                                      | 28.0                              | 5                                                    | BFH             |
| SMCJ30CA           | 30                                          | 33.3                                             | 36.8 | 1          | 48.4                                      | 31.0                              | 5                                                    | BFK             |
| SMCJ33C            | 33                                          | 36.7                                             | 44.9 | 1          | 59.0                                      | 25.2                              | 5                                                    | BFL             |
| SMCJ33CA           | 33                                          | 36.7                                             | 40.6 | 1          | 53.3                                      | 28.1                              | 5                                                    | BFM             |
| SMCJ36C            | 36                                          | 40.0                                             | 48.9 | 1          | 64.3                                      | 23.3                              | 5                                                    | BFN             |
| SMCJ36CA           | 36                                          | 40.0                                             | 44.2 | 1          | 58.1                                      | 25.8                              | 5                                                    | BFP             |
| SMCJ40C            | 40                                          | 44.4                                             | 54.3 | 1          | 71.4                                      | 21.0                              | 5                                                    | BFQ             |
| SMCJ40CA           | 40                                          | 44.4                                             | 49.1 | 1          | 64.5                                      | 23.2                              | 5                                                    | BFR             |
| SMCJ43C            | 43                                          | 47.8                                             | 58.4 | 1          | 76.7                                      | 19.6                              | 5                                                    | BFS             |
| SMCJ43CA           | 43                                          | 47.8                                             | 52.8 | 1          | 69.4                                      | 21.6                              | 5                                                    | BFT             |
| SMCJ45C            | 45                                          | 50.0                                             | 61.1 | 1          | 80.3                                      | 18.7                              | 5                                                    | BFU             |
| SMCJ45CA           | 45                                          | 50.0                                             | 55.3 | 1          | 72.7                                      | 20.6                              | 5                                                    | BFV             |
| SMCJ48C            | 48                                          | 53.3                                             | 65.1 | 1          | 85.5                                      | 17.5                              | 5                                                    | BFW             |
| SMCJ48CA           | 48                                          | 53.3                                             | 58.9 | 1          | 77.4                                      | 19.4                              | 5                                                    | BFX             |
| SMCJ51C            | 51                                          | 56.7                                             | 69.3 | 1          | 91.1                                      | 18.5                              | 5                                                    | BFY             |
| SMCJ51CA           | 51                                          | 56.7                                             | 62.7 | 1          | 82.4                                      | 18.2                              | 5                                                    | BFZ             |
| SMCJ54C            | 54                                          | 60.0                                             | 73.3 | 1          | 96.3                                      | 15.6                              | 5                                                    | BGD             |
| SMCJ54CA           | 54                                          | 60.0                                             | 66.3 | 1          | 87.1                                      | 17.2                              | 5                                                    | BGE             |
| SMCJ58C            | 58                                          | 64.4                                             | 78.7 | 1          | 103                                       | 14.6                              | 5                                                    | BGF             |
| SMCJ58CA           | 58                                          | 64.4                                             | 71.2 | 1          | 93.6                                      | 16.0                              | 5                                                    | BGG             |
| SMCJ60C            | 60                                          | 66.7                                             | 81.5 | 1          | 107                                       | 14.0                              | 5                                                    | BGH             |
| SMCJ60CA           | 60                                          | 66.7                                             | 73.7 | 1          | 96.8                                      | 15.5                              | 5                                                    | BGK             |
| SMCJ64C            | 64                                          | 71.1                                             | 86.9 | 1          | 114                                       | 13.2                              | 5                                                    | BGL             |
| SMCJ64CA           | 64                                          | 71.1                                             | 78.6 | 1          | 103                                       | 14.6                              | 5                                                    | BGM             |
| SMCJ70C            | 70                                          | 77.8                                             | 95.1 | 1          | 125                                       | 12.0                              | 5                                                    | BGN             |
| SMCJ70CA           | 70                                          | 77.8                                             | 86.0 | 1          | 113                                       | 13.3                              | 5                                                    | BGP             |
| SMCJ75C            | 75                                          | 83.3                                             | 102  | 1          | 134                                       | 11.2                              | 5                                                    | BGQ             |
| SMCJ75CA           | 75                                          | 83.3                                             | 92.1 | 1          | 121                                       | 12.4                              | 5                                                    | BGR             |
| SMCJ78C            | 78                                          | 86.7                                             | 106  | 1          | 139                                       | 10.8                              | 5                                                    | BGS             |
| SMCJ78CA           | 78                                          | 86.7                                             | 95.8 | 1          | 126                                       | 11.4                              | 5                                                    | BGT             |
| SMCJ85C            | 85                                          | 94.4                                             | 115  | 1          | 151                                       | 9.9                               | 5                                                    | BGU             |
| SMCJ85CA           | 85                                          | 94.4                                             | 104  | 1          | 137                                       | 10.4                              | 5                                                    | BGV             |
| SMCJ90C            | 90                                          | 100                                              | 122  | 1          | 160                                       | 9.4                               | 5                                                    | BGW             |
| SMCJ90CA           | 90                                          | 100                                              | 111  | 1          | 146                                       | 10.3                              | 5                                                    | BGX             |
| SMCJ100C           | 100                                         | 111                                              | 136  | 1          | 179                                       | 8.4                               | 5                                                    | BGY             |
| SMCJ100CA          | 100                                         | 111                                              | 123  | 1          | 162                                       | 9.3                               | 5                                                    | BGZ             |
| SMCJ110C           | 110                                         | 122                                              | 149  | 1          | 196                                       | 7.7                               | 5                                                    | BHD             |
| SMCJ110CA          | 110                                         | 122                                              | 135  | 1          | 177                                       | 8.4                               | 5                                                    | BHE             |
| SMCJ120C           | 120                                         | 133                                              | 163  | 1          | 214                                       | 7.0                               | 5                                                    | BHF             |
| SMCJ120CA          | 120                                         | 133                                              | 147  | 1          | 193                                       | 7.8                               | 5                                                    | BHG             |

# SMCJ5.0 THRU SMCJ170CA

Electrical Characteristics @ 25°C Unless Otherwise Specified

| MCC PART<br>NUMBER | REVERSE<br>STAND-OFF<br>VOLTAGE<br>$V_{WM}$ | BREAKDOWN VOLTAGE<br>$V_{(BR)} @ I_T$<br>(VOLTS) |     |            | MAXIMUM<br>CLAMPING<br>VOLTAGE @ $I_{PP}$ | PEAK PULSE<br>CURRENT<br>$I_{PP}$ | MAXIMUM<br>REVERSE<br>LEAKAGE<br>@ $V_{WM}$<br>$I_b$ | MARKING<br>CODE |
|--------------------|---------------------------------------------|--------------------------------------------------|-----|------------|-------------------------------------------|-----------------------------------|------------------------------------------------------|-----------------|
|                    | VOLTS                                       | MIN                                              | MAX | $I_T$ (mA) | VOLTS                                     | (AMPS)                            | ( $\mu A$ )                                          |                 |
| SMCJ130C           | 130                                         | 144                                              | 176 | 1          | 231                                       | 6.5                               | 5                                                    | BHH             |
| SMCJ130CA          | 130                                         | 144                                              | 159 | 1          | 209                                       | 7.2                               | 5                                                    | BHK             |
| SMCJ150C           | 150                                         | 167                                              | 204 | 1          | 268                                       | 5.6                               | 5                                                    | BHL             |
| SMCJ150CA          | 150                                         | 167                                              | 185 | 1          | 243                                       | 6.2                               | 5                                                    | BHM             |
| SMCJ160C           | 160                                         | 178                                              | 218 | 1          | 287                                       | 5.2                               | 5                                                    | BHN             |
| SMCJ160CA          | 160                                         | 178                                              | 197 | 1          | 259                                       | 5.8                               | 5                                                    | BHP             |
| SMCJ170C           | 170                                         | 189                                              | 231 | 1          | 304                                       | 4.9                               | 5                                                    | BHQ             |
| SMCJ170CA          | 170                                         | 189                                              | 209 | 1          | 275                                       | 5.5                               | 5                                                    | BHR             |