



Micro Commercial Components  
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## SMLJ5.0 THRU SMLJ170CA

### 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): 0.5%
- Fast response time: typical less than 1ps from 0V to BV min
- Typical  $I_b$  less than 1uA above 10V
- High temperature soldering: 250°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

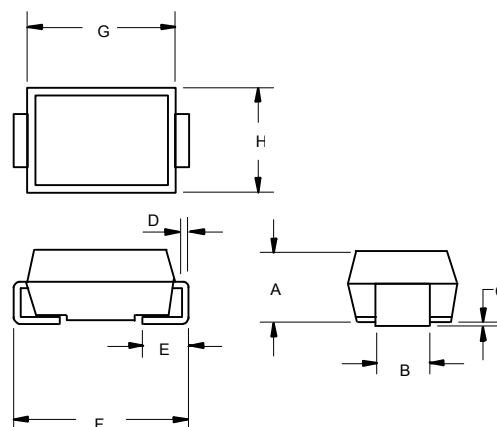
|                                                                   |                      |                 |       |
|-------------------------------------------------------------------|----------------------|-----------------|-------|
| Peak Pulse Current on 10/1000us waveform(Note1, Fig3)             | $I_{PPM}$            | See Table 1     | Amps  |
| Peak Pulse Power Dissipation on 10/1000us waveform(Note1,2, Fig1) | $P_{PPM}$            | Minimum 3000    | 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.

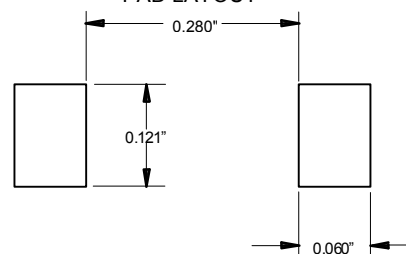
### Transient Voltage Suppressor 5.0 to 170 Volts 3000 Watt

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



| DIMENSIONS |        |      |       |       |      |
|------------|--------|------|-------|-------|------|
| DIM        | INCHES |      | MM    |       | NOTE |
|            | MIN    | MAX  | MIN   | MAX   |      |
| A          | .079   | .103 | 2.00  | 2.62  |      |
| B          | .115   | .121 | 2.92  | 3.07  |      |
| 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



# SMLJ5.0 thru SMLJ170CA

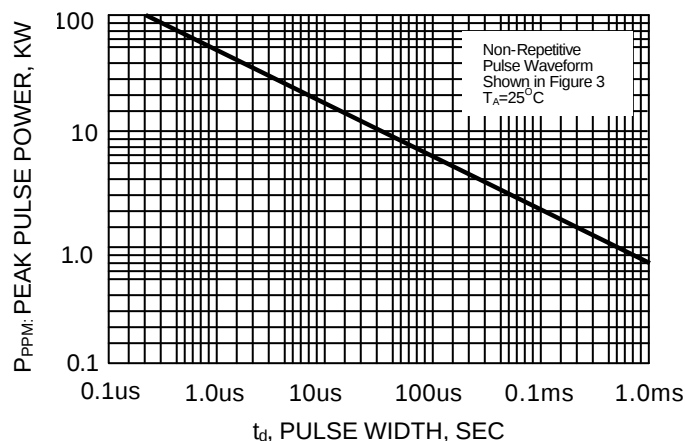


Fig. 1-PEAL PULSE POWER VS PULSE.TIME

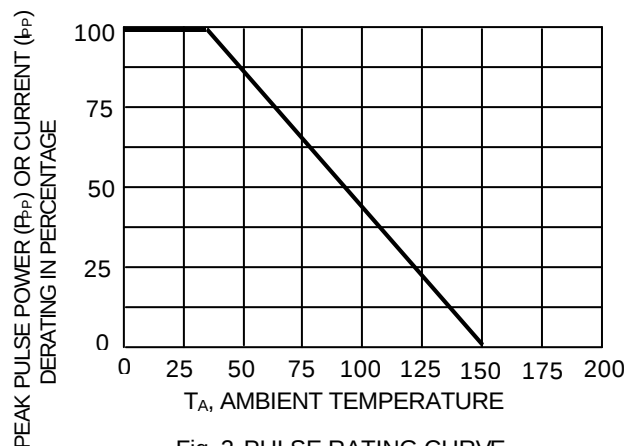


Fig. 2-PULSE RATING CURVE

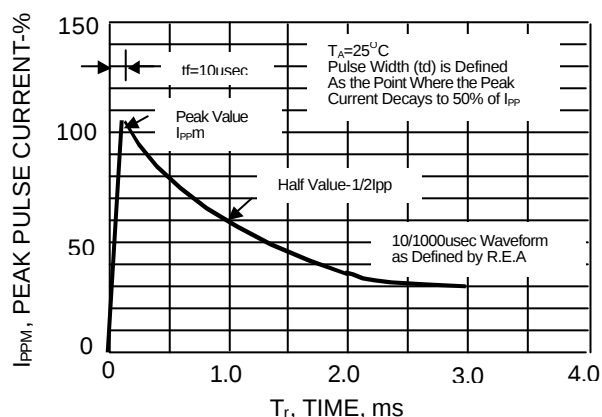


Fig. 3-PULSE WAVEFORM

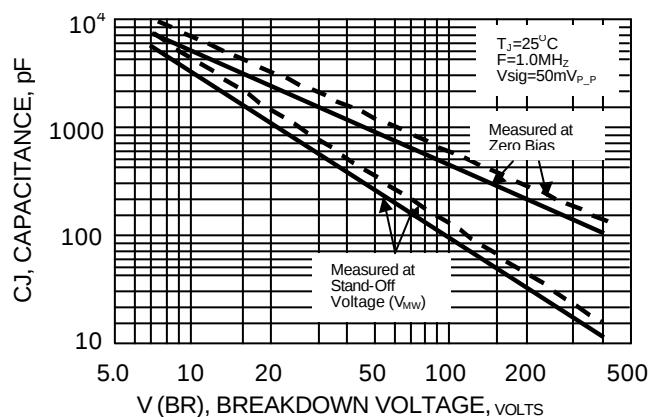


Fig. 4-TYPICAL CAPACITANCE VS STAND-OFF VOLTAGE

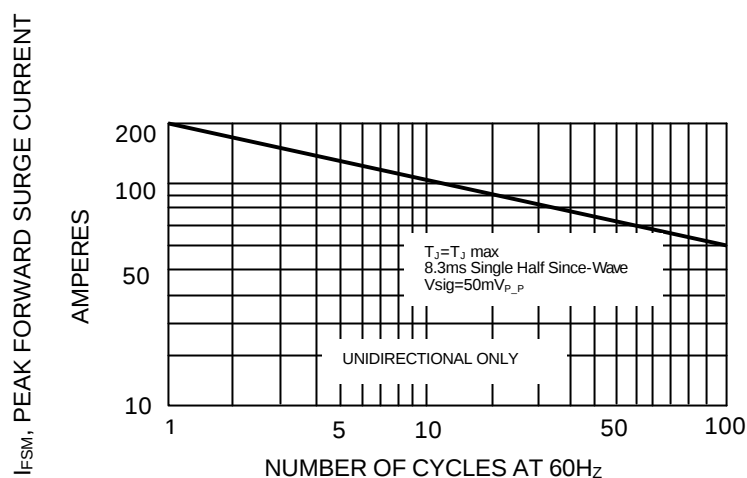


Fig-5MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CUTTENT

# SMLJ5.0 THRU SMLJ170CA

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)                                           |                 |
| SMLJ5.0            | 5.0                                         | 6.40                                             | 7.30 | 10         | 9.6                                       | 312.5                             | 1000                                                 | HDD             |
| SMLJ5.0A           | 5.0                                         | 6.40                                             | 7.00 | 10         | 9.2                                       | 326.0                             | 1000                                                 | HDE             |
| SMLJ6.0            | 6.0                                         | 6.67                                             | 8.15 | 10         | 11.4                                      | 263.2                             | 1000                                                 | HDF             |
| SMLJ6.0A           | 6.0                                         | 6.67                                             | 7.37 | 10         | 10.3                                      | 291.3                             | 1000                                                 | HDG             |
| SMLJ6.5            | 6.5                                         | 7.22                                             | 8.82 | 10         | 12.3                                      | 243.9                             | 500                                                  | HDH             |
| SMLJ6.5A           | 6.5                                         | 7.22                                             | 7.98 | 10         | 11.2                                      | 267.9                             | 500                                                  | HDK             |
| SMLJ7.0            | 7.0                                         | 7.78                                             | 9.51 | 10         | 13.3                                      | 225.6                             | 200                                                  | HDL             |
| SMLJ7.0A           | 7.0                                         | 7.78                                             | 8.60 | 10         | 12.0                                      | 250.0                             | 200                                                  | HDM             |
| SMLJ7.5            | 7.5                                         | 8.33                                             | 10.2 | 1          | 14.3                                      | 209.8                             | 100                                                  | HDN             |
| SMLJ7.5A           | 7.5                                         | 8.33                                             | 9.21 | 1          | 12.9                                      | 232.6                             | 100                                                  | HDP             |
| SMLJ8.0            | 8.0                                         | 8.89                                             | 10.9 | 1          | 15.0                                      | 200.0                             | 50                                                   | HDQ             |
| SMLJ8.0A           | 8.0                                         | 8.89                                             | 9.83 | 1          | 13.6                                      | 220.6                             | 50                                                   | HDR             |
| SMLJ8.5            | 8.5                                         | 9.44                                             | 11.5 | 1          | 15.9                                      | 118.8                             | 25                                                   | HDS             |
| SMLJ8.5A           | 8.5                                         | 9.44                                             | 10.4 | 1          | 14.4                                      | 208.4                             | 25                                                   | HDT             |
| SMLJ9.0            | 9.0                                         | 10.0                                             | 12.2 | 1          | 16.9                                      | 177.4                             | 10                                                   | HDU             |
| SMLJ9.0A           | 9.0                                         | 10.0                                             | 11.1 | 1          | 15.4                                      | 194.8                             | 10                                                   | HDV             |
| SMLJ10             | 10                                          | 11.1                                             | 13.6 | 1          | 18.8                                      | 159.6                             | 5                                                    | HDW             |
| SMLJ10A            | 10                                          | 11.1                                             | 12.3 | 1          | 17.0                                      | 176.4                             | 5                                                    | HDX             |
| SMLJ11             | 11                                          | 12.2                                             | 14.9 | 1          | 20.1                                      | 149.2                             | 5                                                    | HDY             |
| SMLJ11A            | 11                                          | 12.2                                             | 13.5 | 1          | 18.2                                      | 164.8                             | 5                                                    | HDZ             |
| SMLJ12             | 12                                          | 13.3                                             | 16.3 | 1          | 22.0                                      | 136.4                             | 5                                                    | HED             |
| SMLJ12A            | 12                                          | 13.3                                             | 14.7 | 1          | 19.9                                      | 150.6                             | 5                                                    | HEE             |
| SMLJ13             | 13                                          | 14.4                                             | 17.6 | 1          | 23.8                                      | 126.0                             | 5                                                    | HEF             |
| SMLJ13A            | 13                                          | 14.4                                             | 15.5 | 1          | 21.5                                      | 139.4                             | 5                                                    | HEG             |
| SMLJ14             | 14                                          | 15.6                                             | 19.1 | 1          | 25.8                                      | 116.2                             | 5                                                    | HEH             |
| SMLJ14A            | 14                                          | 15.6                                             | 17.2 | 1          | 23.2                                      | 129.4                             | 5                                                    | HEK             |
| SMLJ15             | 15                                          | 16.7                                             | 20.4 | 1          | 26.9                                      | 111.6                             | 5                                                    | HEL             |
| SMLJ15A            | 15                                          | 16.7                                             | 18.5 | 1          | 24.4                                      | 123.0                             | 5                                                    | HEM             |
| SMLJ16             | 16                                          | 17.8                                             | 21.8 | 1          | 28.8                                      | 104.2                             | 5                                                    | HEN             |
| SMLJ16A            | 16                                          | 17.8                                             | 19.7 | 1          | 26.0                                      | 115.4                             | 5                                                    | HEP             |
| SMLJ17             | 17                                          | 18.9                                             | 23.1 | 1          | 30.5                                      | 98.4                              | 5                                                    | HEQ             |
| SMLJ17A            | 17                                          | 18.9                                             | 20.9 | 1          | 27.6                                      | 106.6                             | 5                                                    | HER             |
| SMLJ18             | 18                                          | 20.0                                             | 24.4 | 1          | 32.2                                      | 93.2                              | 5                                                    | HES             |
| SMLJ18A            | 18                                          | 20.0                                             | 22.1 | 1          | 29.2                                      | 102.8                             | 5                                                    | HET             |
| SMLJ20             | 20                                          | 22.2                                             | 27.1 | 1          | 35.8                                      | 83.8                              | 5                                                    | HEU             |
| SMLJ20A            | 20                                          | 22.2                                             | 24.5 | 1          | 32.4                                      | 92.6                              | 5                                                    | HEV             |
| SMLJ22             | 22                                          | 24.4                                             | 29.8 | 1          | 39.4                                      | 76.2                              | 5                                                    | HEW             |
| SMLJ22A            | 22                                          | 24.4                                             | 26.9 | 1          | 35.5                                      | 84.4                              | 5                                                    | HEX             |
| SMLJ24             | 24                                          | 26.7                                             | 32.6 | 1          | 43.0                                      | 69.8                              | 5                                                    | HEY             |
| SMLJ24A            | 24                                          | 26.7                                             | 29.5 | 1          | 38.9                                      | 77.2                              | 5                                                    | HEZ             |
| SMLJ26             | 26                                          | 28.9                                             | 35.3 | 1          | 46.6                                      | 64.4                              | 5                                                    | HFD             |
| SMLJ26A            | 26                                          | 28.9                                             | 31.9 | 1          | 42.1                                      | 71.2                              | 5                                                    | HFE             |

# SMLJ5.0 THRU SMLJ170CA

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)                                           |                 |
| SMLJ28             | 28                                          | 31.1                                             | 38.0  | 1          | 50.0                                      | 60.0                              | 5                                                    | HFF             |
| SMLJ28A            | 28                                          | 31.1                                             | 34.4  | 1          | 45.4                                      | 66.0                              | 5                                                    | HFG             |
| SMLJ30             | 30                                          | 33.3                                             | 40.7  | 1          | 53.5                                      | 56.0                              | 5                                                    | HFH             |
| SMLJ30A            | 30                                          | 33.3                                             | 36.8  | 1          | 48.4                                      | 62.0                              | 5                                                    | HKF             |
| SMLJ33             | 33                                          | 36.7                                             | 44.9  | 1          | 59.0                                      | 50.4                              | 5                                                    | HFL             |
| SMLJ33A            | 33                                          | 36.7                                             | 40.6  | 1          | 53.3                                      | 56.2                              | 5                                                    | HFM             |
| SMLJ36             | 36                                          | 40.0                                             | 48.9  | 1          | 64.3                                      | 46.6                              | 5                                                    | HFN             |
| SMLJ36A            | 36                                          | 40.0                                             | 44.2  | 1          | 58.1                                      | 51.6                              | 5                                                    | HFP             |
| SMLJ40             | 40                                          | 44.4                                             | 54.3  | 1          | 71.4                                      | 42.0                              | 5                                                    | HFQ             |
| SMLJ40A            | 40                                          | 44.4                                             | 49.1  | 1          | 64.5                                      | 46.4                              | 5                                                    | HFR             |
| SMLJ43             | 43                                          | 47.8                                             | 58.4  | 1          | 76.7                                      | 39.2                              | 5                                                    | HFS             |
| SMLJ43A            | 43                                          | 47.8                                             | 52.8  | 1          | 69.4                                      | 43.2                              | 5                                                    | HFT             |
| SMLJ45             | 45                                          | 50.0                                             | 61.1  | 1          | 80.3                                      | 37.4                              | 5                                                    | HFU             |
| SMLJ45A            | 45                                          | 50.0                                             | 55.3  | 1          | 72.7                                      | 41.2                              | 5                                                    | HFV             |
| SMLJ48             | 48                                          | 53.3                                             | 65.1  | 1          | 85.5                                      | 35.0                              | 5                                                    | HFVW            |
| SMLJ48A            | 48                                          | 53.3                                             | 58.9  | 1          | 77.4                                      | 38.8                              | 5                                                    | HFX             |
| SMLJ51             | 51                                          | 56.7                                             | 69.3  | 1          | 91.1                                      | 37.0                              | 5                                                    | HFY             |
| SMLJ51A            | 51                                          | 56.7                                             | 62.7  | 1          | 82.4                                      | 36.4                              | 5                                                    | HFZ             |
| SMLJ54             | 54                                          | 60.0                                             | 73.3  | 1          | 96.3                                      | 31.2                              | 5                                                    | HGD             |
| SMLJ54A            | 54                                          | 60.0                                             | 66.3  | 1          | 87.1                                      | 34.4                              | 5                                                    | HGE             |
| SMLJ58             | 58                                          | 64.4                                             | 78.7  | 1          | 103                                       | 39.2                              | 5                                                    | HGF             |
| SMLJ58A            | 58                                          | 64.4                                             | 71.2  | 1          | 93.6                                      | 32.0                              | 5                                                    | HGG             |
| SMLJ60             | 60                                          | 66.7                                             | 81.5  | 1          | 107                                       | 28.0                              | 5                                                    | HGH             |
| SMLJ60A            | 60                                          | 66.7                                             | 73.7  | 1          | 96.8                                      | 31.0                              | 5                                                    | HGK             |
| SMLJ64             | 64                                          | 71.1                                             | 86.9  | 1          | 114                                       | 26.4                              | 5                                                    | HGL             |
| SMLJ64A            | 64                                          | 71.1                                             | 78.6  | 1          | 103                                       | 29.2                              | 5                                                    | HGM             |
| SMLJ70             | 70                                          | 77.8                                             | 95.1  | 1          | 125                                       | 24.0                              | 5                                                    | HGN             |
| SMLJ70A            | 70                                          | 77.8                                             | 86.0  | 1          | 113                                       | 26.6                              | 5                                                    | HGP             |
| SMLJ75             | 75                                          | 83.3                                             | 102.0 | 1          | 134                                       | 22.4                              | 5                                                    | HGQ             |
| SMLJ75A            | 75                                          | 83.3                                             | 92.1  | 1          | 121                                       | 24.8                              | 5                                                    | HGR             |
| SMLJ78             | 78                                          | 86.7                                             | 106.0 | 1          | 139                                       | 21.6                              | 5                                                    | HGS             |
| SMLJ78A            | 78                                          | 86.7                                             | 95.8  | 1          | 126                                       | 22.8                              | 5                                                    | HGT             |
| SMLJ85             | 85                                          | 94.4                                             | 115.0 | 1          | 151                                       | 19.8                              | 5                                                    | HGU             |
| SMLJ85A            | 85                                          | 94.4                                             | 104.0 | 1          | 137                                       | 20.8                              | 5                                                    | HGV             |
| SMLJ90             | 90                                          | 100                                              | 122.0 | 1          | 160                                       | 18.8                              | 5                                                    | HGW             |
| SMLJ90A            | 90                                          | 100                                              | 111.0 | 1          | 146                                       | 20.6                              | 5                                                    | HGX             |
| SMLJ100            | 100                                         | 111                                              | 136   | 1          | 179                                       | 16.8                              | 5                                                    | HGY             |
| SMLJ100A           | 100                                         | 111                                              | 123   | 1          | 162                                       | 18.6                              | 5                                                    | HGZ             |
| SMLJ110            | 110                                         | 122                                              | 149.0 | 1          | 196                                       | 15.4                              | 5                                                    | HHD             |
| SMLJ110A           | 110                                         | 122                                              | 135.0 | 1          | 177                                       | 16.8                              | 5                                                    | HHE             |
| SMLJ120            | 120                                         | 133                                              | 163   | 1          | 214                                       | 14.0                              | 5                                                    | HHF             |
| SMLJ120A           | 120                                         | 133                                              | 147   | 1          | 193                                       | 15.6                              | 5                                                    | HHG             |

# SMLJ5.0 THRU SMLJ170CA

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 @ $I_{CP}$ | 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)                            | (uA)                                                 |                 |
| SMLJ130            | 130                                         | 144                                              | 176.0 | 1          | 231                                       | 13.0                              | 5                                                    | HHH             |
| SMLJ130A           | 130                                         | 144                                              | 159.0 | 1          | 209                                       | 14.4                              | 5                                                    | HHK             |
| SMLJ150            | 150                                         | 167                                              | 204.0 | 1          | 268                                       | 11.2                              | 5                                                    | HHL             |
| SMLJ150A           | 150                                         | 167                                              | 185.0 | 1          | 243                                       | 12.4                              | 5                                                    | HHM             |
| SMLJ160            | 160                                         | 178                                              | 218.0 | 1          | 287                                       | 10.4                              | 5                                                    | HHN             |
| SMLJ160A           | 160                                         | 178                                              | 197.0 | 1          | 259                                       | 11.6                              | 5                                                    | HHP             |
| SMLJ170            | 170                                         | 189                                              | 231.0 | 1          | 304                                       | 9.8                               | 5                                                    | HHQ             |
| SMLJ170A           | 170                                         | 189                                              | 209.0 | 1          | 275                                       | 11.0                              | 5                                                    | HHR             |

# SMLJ5.0 THRU SMLJ170CA

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)                                           |                 |
| SMLJ5.0 C          | 5.0                                         | 6.40                                             | 7.30  | 10         | 9.6                                       | 312.5                             | 2000                                                 | IDD             |
| SMLJ5.0 CA         | 5.0                                         | 6.40                                             | 7.00  | 10         | 9.2                                       | 326.0                             | 2000                                                 | IDE             |
| SMLJ6.0 C          | 6.0                                         | 6.67                                             | 8.15  | 10         | 11.4                                      | 263.2                             | 2000                                                 | IDF             |
| SMLJ6.0 CA         | 6.0                                         | 6.67                                             | 7.37  | 10         | 10.3                                      | 291.3                             | 2000                                                 | IDG             |
| SMLJ6.5 C          | 6.5                                         | 7.22                                             | 8.82  | 10         | 12.3                                      | 243.9                             | 1000                                                 | IDH             |
| SMLJ6.5 CA         | 6.5                                         | 7.22                                             | 7.98  | 10         | 11.2                                      | 267.9                             | 1000                                                 | IDK             |
| SMLJ7.0 C          | 7.0                                         | 7.78                                             | 9.51  | 10         | 13.3                                      | 225.6                             | 400                                                  | IDL             |
| SMLJ7.0 CA         | 7.0                                         | 7.78                                             | 8.60  | 10         | 12.0                                      | 250.0                             | 400                                                  | IDM             |
| SMLJ7.5 C          | 7.5                                         | 8.33                                             | 10.20 | 1          | 14.3                                      | 209.8                             | 200                                                  | IDN             |
| SMLJ7.5 CA         | 7.5                                         | 8.33                                             | 9.21  | 1          | 12.9                                      | 232.6                             | 200                                                  | IDP             |
| SMLJ8.0 C          | 8.0                                         | 8.89                                             | 10.9  | 1          | 15.0                                      | 200.0                             | 100                                                  | IDQ             |
| SMLJ8.0 CA         | 8.0                                         | 8.89                                             | 9.83  | 1          | 13.6                                      | 220.6                             | 100                                                  | IDR             |
| SMLJ8.5 C          | 8.5                                         | 9.44                                             | 11.50 | 1          | 15.9                                      | 168.8                             | 50                                                   | IDS             |
| SMLJ8.5 CA         | 8.5                                         | 9.44                                             | 10.40 | 1          | 14.4                                      | 208.4                             | 50                                                   | IDT             |
| SMLJ9.0 C          | 9.0                                         | 10.0                                             | 12.2  | 1          | 16.9                                      | 177.4                             | 20                                                   | IDU             |
| SMLJ9.0 CA         | 9.0                                         | 10.0                                             | 11.1  | 1          | 15.4                                      | 194.8                             | 20                                                   | IDV             |
| SMLJ10 C           | 10                                          | 11.1                                             | 13.6  | 1          | 18.8                                      | 159.6                             | 5                                                    | IDW             |
| SMLJ10 CA          | 10                                          | 11.1                                             | 12.3  | 1          | 17.0                                      | 176.4                             | 5                                                    | IDX             |
| SMLJ11 C           | 11                                          | 12.2                                             | 14.9  | 1          | 20.1                                      | 149.2                             | 5                                                    | IDY             |
| SMLJ11 CA          | 11                                          | 12.2                                             | 13.5  | 1          | 18.2                                      | 184.8                             | 5                                                    | IDZ             |
| SMLJ12 C           | 12                                          | 13.3                                             | 16.3  | 1          | 22.0                                      | 136.4                             | 5                                                    | IED             |
| SMLJ12 CA          | 12                                          | 13.3                                             | 14.7  | 1          | 19.9                                      | 150.6                             | 5                                                    | IEE             |
| SMLJ13C            | 13                                          | 14.4                                             | 17.6  | 1          | 23.8                                      | 126.0                             | 5                                                    | IEF             |
| SMLJ13 CA          | 13                                          | 14.4                                             | 15.9  | 1          | 21.5                                      | 139.4                             | 5                                                    | IEG             |
| SMLJ14 C           | 14                                          | 15.6                                             | 19.1  | 1          | 25.8                                      | 116.2                             | 5                                                    | IEH             |
| SMLJ14 CA          | 14                                          | 15.6                                             | 17.2  | 1          | 23.2                                      | 129.4                             | 5                                                    | IEK             |
| SMLJ15 C           | 15                                          | 16.7                                             | 20.4  | 1          | 26.9                                      | 111.6                             | 5                                                    | IEL             |
| SMLJ15 CA          | 15                                          | 16.7                                             | 18.5  | 1          | 24.4                                      | 123.0                             | 5                                                    | IEM             |
| SMLJ16C            | 16                                          | 17.8                                             | 21.8  | 1          | 28.8                                      | 104.2                             | 5                                                    | IEN             |
| SMLJ16 CA          | 16                                          | 17.8                                             | 19.7  | 1          | 26.0                                      | 115.4                             | 5                                                    | IEP             |
| SMLJ17 C           | 17                                          | 18.9                                             | 23.1  | 1          | 30.5                                      | 98.4                              | 5                                                    | IEQ             |
| SMLJ17 CA          | 17                                          | 18.9                                             | 20.9  | 1          | 27.6                                      | 106.6                             | 5                                                    | IER             |
| SMLJ18 C           | 18                                          | 20.0                                             | 24.4  | 1          | 32.2                                      | 93.2                              | 5                                                    | IES             |
| SMLJ18 CA          | 18                                          | 20.0                                             | 22.1  | 1          | 29.2                                      | 102.8                             | 5                                                    | IET             |
| SMLJ20 C           | 20                                          | 22.2                                             | 27.1  | 1          | 35.8                                      | 83.8                              | 5                                                    | IEU             |
| SMLJ20 CA          | 20                                          | 22.2                                             | 24.1  | 1          | 32.4                                      | 92.6                              | 5                                                    | IEV             |
| SMLJ22 C           | 22                                          | 24.4                                             | 29.8  | 1          | 39.4                                      | 76.2                              | 5                                                    | IEW             |
| SMLJ22 CA          | 22                                          | 24.4                                             | 26.9  | 1          | 35.5                                      | 84.4                              | 5                                                    | IEX             |
| SMLJ24 C           | 24                                          | 26.7                                             | 32.6  | 1          | 43.0                                      | 69.8                              | 5                                                    | IEY             |
| SMLJ24 CA          | 24                                          | 26.7                                             | 29.5  | 1          | 38.9                                      | 77.2                              | 5                                                    | IEZ             |
| SMLJ26 C           | 26                                          | 28.9                                             | 35.3  | 1          | 46.6                                      | 64.4                              | 5                                                    | IFD             |
| SMLJ26 CA          | 26                                          | 28.9                                             | 31.9  | 1          | 42.1                                      | 71.2                              | 5                                                    | IFE             |

# SMLJ5.0 THRU SMLJ170CA

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)                                           |                 |
| SMLJ28C            | 28                                          | 31.1                                             | 38.0  | 1          | 50.0                                      | 60.0                              | 5                                                    | IFF             |
| SMLJ28CA           | 28                                          | 31.1                                             | 34.4  | 1          | 45.4                                      | 66.0                              | 5                                                    | IFG             |
| SMLJ30C            | 30                                          | 33.3                                             | 40.7  | 1          | 53.5                                      | 56.0                              | 5                                                    | IFH             |
| SMLJ30CA           | 30                                          | 33.3                                             | 36.8  | 1          | 48.4                                      | 62.0                              | 5                                                    | IFK             |
| SMLJ33C            | 33                                          | 36.7                                             | 44.9  | 1          | 59.0                                      | 50.4                              | 5                                                    | IFL             |
| SMLJ33CA           | 33                                          | 36.7                                             | 40.6  | 1          | 53.3                                      | 56.2                              | 5                                                    | IFM             |
| SMLJ36C            | 36                                          | 40.0                                             | 48.9  | 1          | 64.3                                      | 46.6                              | 5                                                    | IFN             |
| SMLJ36CA           | 36                                          | 40.0                                             | 44.2  | 1          | 58.1                                      | 51.6                              | 5                                                    | IFP             |
| SMLJ40C            | 40                                          | 44.4                                             | 54.3  | 1          | 71.4                                      | 42.0                              | 5                                                    | IFQ             |
| SMLJ40CA           | 40                                          | 44.4                                             | 49.1  | 1          | 64.5                                      | 46.4                              | 5                                                    | IFR             |
| SMLJ43C            | 43                                          | 47.8                                             | 58.4  | 1          | 76.7                                      | 39.2                              | 5                                                    | IFS             |
| SMLJ43CA           | 43                                          | 47.8                                             | 52.8  | 1          | 69.4                                      | 43.2                              | 5                                                    | IFT             |
| SMLJ45C            | 45                                          | 50.0                                             | 61.1  | 1          | 80.3                                      | 37.4                              | 5                                                    | IFU             |
| SMLJ45CA           | 45                                          | 50.0                                             | 55.3  | 1          | 72.7                                      | 41.2                              | 5                                                    | IFV             |
| SMLJ48C            | 48                                          | 53.3                                             | 65.1  | 1          | 85.5                                      | 35.0                              | 5                                                    | IFW             |
| SMLJ48CA           | 48                                          | 53.3                                             | 58.9  | 1          | 77.4                                      | 38.8                              | 5                                                    | IFX             |
| SMLJ51C            | 51                                          | 56.7                                             | 69.3  | 1          | 91.1                                      | 37.0                              | 5                                                    | IFY             |
| SMLJ51CA           | 51                                          | 56.7                                             | 62.7  | 1          | 82.4                                      | 36.4                              | 5                                                    | IFZ             |
| SMLJ54C            | 54                                          | 60.0                                             | 73.3  | 1          | 96.3                                      | 31.2                              | 5                                                    | IGD             |
| SMLJ54CA           | 54                                          | 60.0                                             | 66.3  | 1          | 87.1                                      | 34.4                              | 5                                                    | IGE             |
| SMLJ58C            | 58                                          | 64.4                                             | 78.7  | 1          | 103                                       | 39.2                              | 5                                                    | IGF             |
| SMLJ58CA           | 58                                          | 64.4                                             | 71.2  | 1          | 93.6                                      | 32.0                              | 5                                                    | IGG             |
| SMLJ60C            | 60                                          | 66.7                                             | 81.5  | 1          | 107                                       | 28.0                              | 5                                                    | IGH             |
| SMLJ60CA           | 60                                          | 66.7                                             | 73.7  | 1          | 96.8                                      | 31.0                              | 5                                                    | IGK             |
| SMLJ64C            | 64                                          | 71.1                                             | 86.9  | 1          | 114                                       | 26.4                              | 5                                                    | IGL             |
| SMLJ64CA           | 64                                          | 71.1                                             | 78.6  | 1          | 103                                       | 29.2                              | 5                                                    | IGM             |
| SMLJ70C            | 70                                          | 77.8                                             | 95.1  | 1          | 125                                       | 24.0                              | 5                                                    | IGN             |
| SMLJ70CA           | 70                                          | 77.8                                             | 86.0  | 1          | 113                                       | 26.6                              | 5                                                    | IGP             |
| SMLJ75C            | 75                                          | 83.3                                             | 102.0 | 1          | 134                                       | 22.4                              | 5                                                    | IGQ             |
| SMLJ75CA           | 75                                          | 83.3                                             | 92.1  | 1          | 121                                       | 24.8                              | 5                                                    | IGR             |
| SMLJ78C            | 78                                          | 86.7                                             | 106.0 | 1          | 139                                       | 21.6                              | 5                                                    | IGS             |
| SMLJ78CA           | 78                                          | 86.7                                             | 95.8  | 1          | 126                                       | 22.8                              | 5                                                    | IGT             |
| SMLJ85C            | 85                                          | 94.4                                             | 115.0 | 1          | 151                                       | 19.8                              | 5                                                    | IGU             |
| SMLJ85CA           | 85                                          | 94.4                                             | 104.0 | 1          | 137                                       | 20.8                              | 5                                                    | IGV             |
| SMLJ90C            | 90                                          | 100                                              | 122.0 | 1          | 160                                       | 18.8                              | 5                                                    | IGW             |
| SMLJ90CA           | 90                                          | 100                                              | 111.0 | 1          | 146                                       | 20.6                              | 5                                                    | IGX             |
| SMLJ100C           | 100                                         | 111                                              | 136   | 1          | 179                                       | 16.8                              | 5                                                    | IGY             |
| SMLJ100CA          | 100                                         | 111                                              | 123   | 1          | 162                                       | 18.6                              | 5                                                    | IGZ             |
| SMLJ110C           | 110                                         | 122                                              | 149.0 | 1          | 196                                       | 15.4                              | 5                                                    | IHD             |
| SMLJ110CA          | 110                                         | 122                                              | 135.0 | 1          | 177                                       | 16.8                              | 5                                                    | IHE             |
| SMLJ120C           | 120                                         | 133                                              | 163   | 1          | 214                                       | 14.0                              | 5                                                    | IHF             |
| SMLJ120CA          | 120                                         | 133                                              | 147   | 1          | 193                                       | 15.6                              | 5                                                    | IHG             |

# SMCL5.0 THRU SMCL170CA

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)                            | ( $\mu A$ )                                          |                 |
| SMLJ130C           | 130                                         | 144                                              | 176.0 | 1          | 231                                       | 13.0                              | 5                                                    | IHH             |
| SMLJ130CA          | 130                                         | 144                                              | 159.0 | 1          | 209                                       | 14.4                              | 5                                                    | IHK             |
| SMLJ150C           | 150                                         | 167                                              | 204.0 | 1          | 268                                       | 11.2                              | 5                                                    | IHL             |
| SMLJ150CA          | 150                                         | 167                                              | 185.0 | 1          | 243                                       | 12.4                              | 5                                                    | IHM             |
| SMLJ160C           | 160                                         | 178                                              | 218.0 | 1          | 287                                       | 10.4                              | 5                                                    | IHN             |
| SMLJ160CA          | 160                                         | 178                                              | 197.0 | 1          | 259                                       | 11.6                              | 5                                                    | IHP             |
| SMLJ170C           | 170                                         | 189                                              | 231.0 | 1          | 304                                       | 9.8                               | 5                                                    | IHQ             |
| SMLJ170CA          | 170                                         | 189                                              | 209.0 | 1          | 275                                       | 11.0                              | 5                                                    | IHR             |