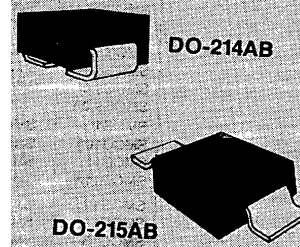


### DESCRIPTION

The SMLJ5.0-170A or SMLG5.0-170A series of 3000 W Transient Voltage Suppressors (TVSs) protects a variety of voltage-sensitive components from destruction or degradation. It is available in J-bend design (SMLJ) with the DO-214AB package for greater PC board mounting density or in a Gull-wing design (SMLG) in the DO-215AB for visible solder connections. Selections include unidirectional and bidirectional. They can protect from secondary lightning effects per IEC61000-4-5 and class levels defined herein, or for inductive switching environments and induced RF protection. Since their response time is virtually instantaneous, they can also be used in protection from ESD and EFT per IEC61000-4-2 and IEC61000-4-4.

**IMPORTANT:** For the most current data, consult MICROSEMI's website: <http://www.microsemi.com>

### APPEARANCE



### FEATURES

- Economical surface mount TVS design in both J-bend or Gull-wing terminations with fast response
- Available in both Unidirectional and Bidirectional construction with a C or CA suffix
- Selections for 5.0 to 170 volts standoff voltages ( $V_{WM}$ )
- Optional 100% screening for avionics grade is available by adding MA prefix to part number for added 100% temperature cycle -55°C to +125°C (10X) as well as surge (3X) and 24 hours HTRB with post test  $V_Z$  &  $I_R$  (in the operating direction for unidirectional or both directions for bidirectional)
- Options for screening in accordance with MIL-PRF-19500 for JANTX are available by adding MX prefix to the part number.
- Axial-lead packages for thru-hole mounting available as 5KP5.0-110A with 5000 W rating (consult factory for other surface mount options)
- RoHS Compliant devices available by adding e3 suffix
- Moisture classification is Level 1 with no dry pack required per IPC/JEDEC J-STD-020B

### APPLICATIONS / BENEFITS

- Suppresses transients up to 3000 watts @ 10/1000  $\mu$ s
- Protection from switching transients and induced RF
- Protection from ESD, and EFT per IEC 61000-4-2 and IEC 61000-4-4
- Secondary lightning protection per IEC61000-4-5 with 42 Ohms source impedance:
  - Class 1 & 2: SML 5.0 to SML 170A or CA
  - Class 3: SML 5.0 to SML 150A or CA
  - Class 4: SML 5.0 to SML 75A or CA
- Secondary lightning protection per IEC61000-4-5 with 12 Ohms source impedance:
  - Class 1: SML 5.0 to SML 170A or CA
  - Class 2: SML 5.0 to SML 90A or CA
  - Class 3: SML 5.0 to SML 48A or CA
  - Class 4: SML 5.0 to SML 24A or CA
- Secondary lightning protection per IEC61000-4-5 with 2 Ohms source impedance:
  - Class 2: SML 5.0 to SML 43A or CA
  - Class 3: SML 5.0 to SML 22A or CA
  - Class 4: SML 5.0 to SML 10A or CA

### MAXIMUM RATINGS

- Peak Pulse Power dissipation at 25°C: 3000 watts at 10/1000  $\mu$ s (also see Fig 1,2, and 3)
- Impulse repetition rate (duty factor): 0.01%
- $t_{clamping}$  (0 volts to  $V_{(BR)}$  min.): < 100 ps theoretical for unidirectional and < 5 ns for bidirectional
- Operating and Storage temperature: -65°C to +150°C
- Thermal resistance: 17.5°C/W junction to lead, or 77.5°C/W junction to ambient when mounted on FR4 PC board (1 oz Cu) with recommended footprint  
Steady-State Power dissipation: 6 watts at  $T_L = 45^\circ\text{C}$ , or 1.61 watts at  $T_A = 25^\circ\text{C}$  when mounted on FR4 PC board with recommended footprint
- Forward Surge at 25°C: 200 Amps peak impulse of 8.3 ms half-sine wave (unidirectional only)
- Solder temperatures: 260°C for 10 s (maximum)

### MECHANICAL AND PACKAGING

- CASE: Void-free transfer molded thermosetting epoxy body meeting UL94V-0
- TERMINALS: Gull-wing or C-bend (modified J-bend) leads with tin-lead or RoHS Compliant annealed matte-Tin plating solderable per MIL-STD-750, method 2026
- POLARITY: Cathode indicated by band. No marking on bidirectional devices
- MARKING: Part number without SM and G or J prefix (e.g. L5.0, L5.0A, L5.0Ae3, L5.0CA, L36, L36A, L36Ae3, L36CAe3, etc.)
- TAPE & REEL option: Standard per EIA-481-2 with 16 mm tape, 750 per 7 inch reel or 2500 per 13 inch reel (add "TR" suffix to part number)
- WEIGHT: 0.25 grams

**ELECTRICAL CHARACTERISTICS @ 25°C**

| MICROSEMI PART<br>NUMBER |                           | REVERSE<br>STANDOFF<br>VOLTAGE<br>V <sub>WM</sub> | BREAKDOWN<br>VOLTAGE<br>V <sub>(BR)</sub> @ I <sub>(BR)</sub><br>Volts |      | MAXIMUM<br>CLAMPING<br>VOLTAGE<br>V <sub>C</sub><br>@ I <sub>PP</sub><br>Volts | PEAK PULSE<br>CURRENT<br>(See Fig. 2)<br>I <sub>PP</sub><br>Amps | MAXIMUM<br>STANDBY<br>CURRENT<br>@ V <sub>WM</sub><br>I <sub>D</sub><br>μA |
|--------------------------|---------------------------|---------------------------------------------------|------------------------------------------------------------------------|------|--------------------------------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------------------------------------|
| GULL-WING<br>LEAD        | MODIFIED "J"<br>BEND LEAD |                                                   | MIN.                                                                   | MAX. |                                                                                |                                                                  |                                                                            |
| SMLG5.0                  | SMLJ5.0                   | 5.0                                               | 6.40 – 7.30                                                            | 10   | 9.6                                                                            | 312.5                                                            | 1000                                                                       |
| SMLG5.0A                 | SMLJ5.0A                  | 5.0                                               | 6.40 – 7.00                                                            | 10   | 9.2                                                                            | 326.0                                                            | 1000                                                                       |
| SMLG6.0                  | SMLJ6.0                   | 6.0                                               | 6.67 – 8.15                                                            | 10   | 11.4                                                                           | 263.2                                                            | 1000                                                                       |
| SMLG6.0A                 | SMLJ6.0A                  | 6.0                                               | 6.67 – 7.37                                                            | 10   | 10.3                                                                           | 291.3                                                            | 1000                                                                       |
| SMLG6.5                  | SMLJ6.5                   | 6.5                                               | 7.22 – 8.82                                                            | 10   | 12.3                                                                           | 243.9                                                            | 500                                                                        |
| SMLG6.5A                 | SMLJ6.5A                  | 6.5                                               | 7.22 – 7.98                                                            | 10   | 11.2                                                                           | 267.9                                                            | 500                                                                        |
| SMLG7.0                  | SMLJ7.0                   | 7.0                                               | 7.78 – 9.51                                                            | 10   | 13.3                                                                           | 225.6                                                            | 200                                                                        |
| SMLG7.0A                 | SMLJ7.0A                  | 7.0                                               | 7.78 – 8.60                                                            | 10   | 12.0                                                                           | 250.0                                                            | 200                                                                        |
| SMLG7.5                  | SMLJ7.5                   | 7.5                                               | 8.33 – 10.2                                                            | 1    | 14.3                                                                           | 209.8                                                            | 100                                                                        |
| SMLG7.5A                 | SMLJ7.5A                  | 7.5                                               | 8.33 – 9.21                                                            | 1    | 12.9                                                                           | 232.6                                                            | 100                                                                        |
| SMLG8.0                  | SMLJ8.0                   | 8.0                                               | 8.89 – 10.9                                                            | 1    | 15.0                                                                           | 200.0                                                            | 50                                                                         |
| SMLG8.0A                 | SMLJ8.0A                  | 8.0                                               | 8.89 – 9.83                                                            | 1    | 13.6                                                                           | 220.6                                                            | 50                                                                         |
| SMLG8.5                  | SMLJ8.5                   | 8.5                                               | 9.44 – 11.5                                                            | 1    | 15.9                                                                           | 188.6                                                            | 25                                                                         |
| SMLG8.5A                 | SMLJ8.5A                  | 8.5                                               | 9.44 – 10.4                                                            | 1    | 14.4                                                                           | 208.4                                                            | 25                                                                         |
| SMLG9.0                  | SMLJ9.0                   | 9.0                                               | 10.0 – 12.2                                                            | 1    | 16.9                                                                           | 177.4                                                            | 10                                                                         |
| SMLG9.0A                 | SMLJ9.0A                  | 9.0                                               | 10.0 – 11.1                                                            | 1    | 15.4                                                                           | 194.8                                                            | 10                                                                         |
| SMLG10                   | SMLJ10                    | 10                                                | 11.1 – 13.6                                                            | 1    | 18.8                                                                           | 159.6                                                            | 5                                                                          |
| SMLG10A                  | SMLJ10A                   | 10                                                | 11.1 – 12.3                                                            | 1    | 17.0                                                                           | 176.4                                                            | 5                                                                          |
| SMLG11                   | SMLJ11                    | 11                                                | 12.2 – 14.9                                                            | 1    | 20.1                                                                           | 149.2                                                            | 5                                                                          |
| SMLG11A                  | SMLJ11A                   | 11                                                | 12.2 – 13.5                                                            | 1    | 18.2                                                                           | 164.8                                                            | 5                                                                          |
| SMLG12                   | SMLJ12                    | 12                                                | 13.3 – 16.3                                                            | 1    | 22.0                                                                           | 136.4                                                            | 5                                                                          |
| SMLG12A                  | SMLJ12A                   | 12                                                | 13.3 – 14.7                                                            | 1    | 19.9                                                                           | 150.6                                                            | 5                                                                          |
| SMLG13                   | SMLJ13                    | 13                                                | 14.4 – 17.6                                                            | 1    | 23.8                                                                           | 126.0                                                            | 5                                                                          |
| SMLG13A                  | SMLJ13A                   | 13                                                | 14.4 – 15.9                                                            | 1    | 21.5                                                                           | 139.4                                                            | 5                                                                          |
| SMLG14                   | SMLJ14                    | 14                                                | 15.6 – 19.1                                                            | 1    | 25.8                                                                           | 116.2                                                            | 2                                                                          |
| SMLG14A                  | SMLJ14A                   | 14                                                | 15.6 – 17.2                                                            | 1    | 23.2                                                                           | 129.4                                                            | 2                                                                          |
| SMLG15                   | SMLJ15                    | 15                                                | 16.7 – 20.4                                                            | 1    | 26.9                                                                           | 111.6                                                            | 2                                                                          |
| SMLG15A                  | SMLJ15A                   | 15                                                | 16.7 – 18.5                                                            | 1    | 24.4                                                                           | 123.0                                                            | 2                                                                          |
| SMLG16                   | SMLJ16                    | 16                                                | 17.8 – 21.8                                                            | 1    | 28.8                                                                           | 104.2                                                            | 2                                                                          |
| SMLG16A                  | SMLJ16A                   | 16                                                | 17.8 – 19.7                                                            | 1    | 26.0                                                                           | 115.4                                                            | 2                                                                          |
| SMLG17                   | SMLJ17                    | 17                                                | 18.9 – 23.1                                                            | 1    | 30.5                                                                           | 98.4                                                             | 2                                                                          |
| SMLG17A                  | SMLJ17A                   | 17                                                | 18.9 – 20.9                                                            | 1    | 27.6                                                                           | 106.6                                                            | 2                                                                          |
| SMLG18                   | SMLJ18                    | 18                                                | 20.0 – 24.4                                                            | 1    | 32.2                                                                           | 93.2                                                             | 2                                                                          |
| SMLG18A                  | SMLJ18A                   | 18                                                | 20.0 – 22.1                                                            | 1    | 29.2                                                                           | 102.8                                                            | 2                                                                          |
| SMLG20                   | SMLJ20                    | 20                                                | 22.2 – 27.1                                                            | 1    | 35.8                                                                           | 83.8                                                             | 2                                                                          |
| SMLG20A                  | SMLJ20A                   | 20                                                | 22.2 – 24.5                                                            | 1    | 32.4                                                                           | 92.6                                                             | 2                                                                          |
| SMLG22                   | SMLJ22                    | 22                                                | 24.4 – 29.8                                                            | 1    | 39.4                                                                           | 76.2                                                             | 2                                                                          |
| SMLG22A                  | SMLJ22A                   | 22                                                | 24.4 – 26.9                                                            | 1    | 35.5                                                                           | 84.4                                                             | 2                                                                          |
| SMLG24                   | SMLJ24                    | 24                                                | 26.7 – 32.6                                                            | 1    | 43.0                                                                           | 69.8                                                             | 2                                                                          |
| SMLG24A                  | SMLJ24A                   | 24                                                | 26.7 – 29.5                                                            | 1    | 38.9                                                                           | 77.2                                                             | 2                                                                          |
| SMLG26                   | SMLJ26                    | 26                                                | 28.9 – 35.3                                                            | 1    | 46.6                                                                           | 64.4                                                             | 2                                                                          |
| SMLG26A                  | SMLJ26A                   | 26                                                | 28.9 – 31.9                                                            | 1    | 42.1                                                                           | 71.2                                                             | 2                                                                          |
| SMLG28                   | SMLJ28                    | 28                                                | 31.1 – 38.0                                                            | 1    | 50.0                                                                           | 60.0                                                             | 2                                                                          |
| SMLG28A                  | SMLJ28A                   | 28                                                | 31.1 – 34.4                                                            | 1    | 45.4                                                                           | 66.0                                                             | 2                                                                          |
| SMLG30                   | SMLJ30                    | 30                                                | 33.3 – 40.7                                                            | 1    | 53.5                                                                           | 56.0                                                             | 2                                                                          |
| SMLG30A                  | SMLJ30A                   | 30                                                | 33.3 – 36.8                                                            | 1    | 48.4                                                                           | 62.0                                                             | 2                                                                          |
| SMLG33                   | SMLJ33                    | 33                                                | 36.7 – 44.9                                                            | 1    | 59.0                                                                           | 50.4                                                             | 2                                                                          |
| SMLG33A                  | SMLJ33A                   | 33                                                | 36.7 – 40.6                                                            | 1    | 53.3                                                                           | 56.2                                                             | 2                                                                          |
| SMLG36                   | SMLJ36                    | 36                                                | 40.0 – 48.9                                                            | 1    | 64.3                                                                           | 46.6                                                             | 2                                                                          |
| SMLG36A                  | SMLJ36A                   | 36                                                | 40.0 – 44.2                                                            | 1    | 58.1                                                                           | 51.6                                                             | 2                                                                          |
| SMLG40                   | SMLJ40                    | 40                                                | 44.4 – 54.3                                                            | 1    | 71.4                                                                           | 42.0                                                             | 2                                                                          |
| SMLG40A                  | SMLJ40A                   | 40                                                | 44.4 – 49.1                                                            | 1    | 64.5                                                                           | 46.4                                                             | 2                                                                          |
| SMLG43                   | SMLJ43                    | 43                                                | 47.8 – 58.4                                                            | 1    | 76.7                                                                           | 39.2                                                             | 2                                                                          |
| SMLG43A                  | SMLJ43A                   | 43                                                | 47.8 – 52.8                                                            | 1    | 69.4                                                                           | 43.2                                                             | 2                                                                          |
| SMLG45                   | SMLJ45                    | 45                                                | 50.0 – 61.1                                                            | 1    | 80.3                                                                           | 37.4                                                             | 2                                                                          |
| SMLG45A                  | SMLJ45A                   | 45                                                | 50.0 – 55.3                                                            | 1    | 72.7                                                                           | 41.2                                                             | 2                                                                          |

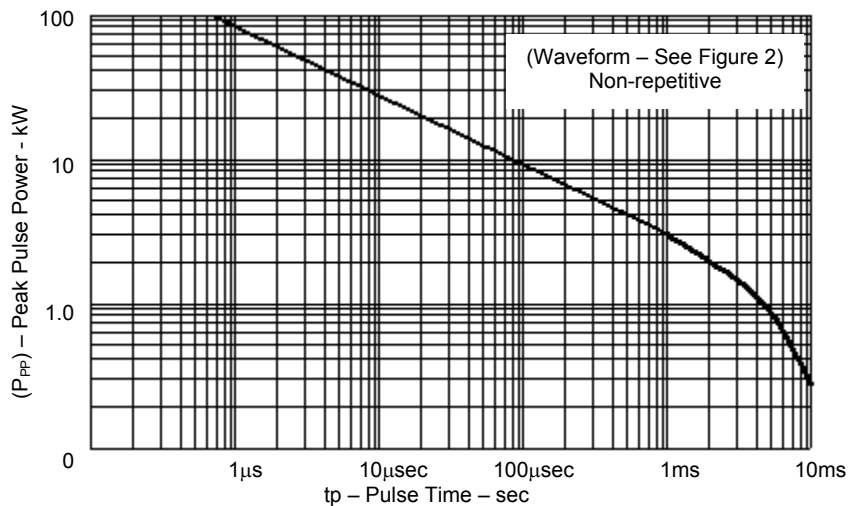
| MICROSEMI PART NUMBER |                           | REVERSE<br>STANDOFF<br>VOLTAGE<br>$V_{WM}$ | BREAKDOWN<br>VOLTAGE<br>$V_{(BR)}$ @ $I_{(BR)}$<br>Volts |      | MAXIMUM<br>CLAMPING<br>VOLTAGE<br>$V_C$<br>@ $I_{PP}$<br>Volts | PEAK PULSE<br>CURRENT<br>(See Fig. 2)<br>$I_{PP}$<br>Amps | MAXIMUM<br>STANDBY<br>CURRENT<br>@ $V_{WM}$<br>$I_D$<br>$\mu A$ |
|-----------------------|---------------------------|--------------------------------------------|----------------------------------------------------------|------|----------------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------------|
| GULL-WING<br>LEAD     | MODIFIED "J"<br>BEND LEAD |                                            | MIN.                                                     | MAX. |                                                                |                                                           |                                                                 |
| SMLG48                | SMLJ48                    | 48                                         | 53.3 – 65.1                                              | 1    | 85.5                                                           | 35.0                                                      | 2                                                               |
| SMLG48A               | SMLJ48A                   | 48                                         | 53.3 – 58.9                                              | 1    | 77.4                                                           | 38.8                                                      | 2                                                               |
| SMLG51                | SMLJ51                    | 51                                         | 56.7 – 69.3                                              | 1    | 91.1                                                           | 37.0                                                      | 2                                                               |
| SMLG51A               | SMLJ51A                   | 51                                         | 56.7 – 62.7                                              | 1    | 82.4                                                           | 36.4                                                      | 2                                                               |
| SMLG54                | SMLJ54                    | 54                                         | 60.0 – 73.3                                              | 1    | 96.3                                                           | 31.2                                                      | 2                                                               |
| SMLG54A               | SMLJ54A                   | 54                                         | 60.0 – 66.3                                              | 1    | 87.1                                                           | 34.4                                                      | 2                                                               |
| SMLG58                | SMLJ58                    | 58                                         | 64.4 – 78.7                                              | 1    | 103.0                                                          | 29.2                                                      | 2                                                               |
| SMLG58A               | SMLJ58A                   | 58                                         | 64.4 – 71.2                                              | 1    | 93.6                                                           | 32.0                                                      | 2                                                               |
| SMLG60                | SMLJ60                    | 60                                         | 66.7 – 81.5                                              | 1    | 107.0                                                          | 28.0                                                      | 2                                                               |
| SMLG60A               | SMLJ60A                   | 60                                         | 66.7 – 73.7                                              | 1    | 96.8                                                           | 31.0                                                      | 2                                                               |
| SMLG64                | SMLJ64                    | 64                                         | 71.1 – 86.9                                              | 1    | 114.0                                                          | 26.4                                                      | 2                                                               |
| SMLG64A               | SMLJ64A                   | 64                                         | 71.1 – 78.6                                              | 1    | 103.0                                                          | 29.2                                                      | 2                                                               |
| SMLG70                | SMLJ70                    | 70                                         | 77.8 – 95.1                                              | 1    | 125                                                            | 24.0                                                      | 2                                                               |
| SMLG70A               | SMLJ70A                   | 70                                         | 77.8 – 86.0                                              | 1    | 113                                                            | 26.6                                                      | 2                                                               |
| SMLG75                | SMLJ75                    | 75                                         | 83.3 – 102.0                                             | 1    | 134                                                            | 22.4                                                      | 2                                                               |
| SMLG75A               | SMLJ75A                   | 75                                         | 83.3 – 92.1                                              | 1    | 121                                                            | 24.8                                                      | 2                                                               |
| SMLG78                | SMLJ78                    | 78                                         | 86.7 – 106.0                                             | 1    | 139                                                            | 21.6                                                      | 2                                                               |
| SMLG78A               | SMLJ78A                   | 78                                         | 86.7 – 95.8                                              | 1    | 126                                                            | 22.8                                                      | 2                                                               |
| SMLG85                | SMLJ85                    | 85                                         | 94.4 – 115.0                                             | 1    | 151                                                            | 19.8                                                      | 2                                                               |
| SMLG85A               | SMLJ85A                   | 85                                         | 94.4 – 104.0                                             | 1    | 137                                                            | 20.8                                                      | 2                                                               |
| SMLG90                | SMLJ90                    | 90                                         | 100 – 122                                                | 1    | 160                                                            | 18.8                                                      | 2                                                               |
| SMLG90A               | SMLJ90A                   | 90                                         | 100 – 111                                                | 1    | 146                                                            | 20.6                                                      | 2                                                               |
| SMLG100               | SMLJ100                   | 100                                        | 111 – 136                                                | 1    | 179                                                            | 16.8                                                      | 2                                                               |
| SMLG100A              | SMLJ100A                  | 100                                        | 111 – 123                                                | 1    | 162                                                            | 18.6                                                      | 2                                                               |
| SMLG110               | SMLJ110                   | 110                                        | 122 – 149                                                | 1    | 196                                                            | 15.4                                                      | 2                                                               |
| SMLG110A              | SMLJ110A                  | 110                                        | 122 – 135                                                | 1    | 177                                                            | 16.8                                                      | 2                                                               |
| SMLG120               | SMLJ120                   | 120                                        | 133 – 163                                                | 1    | 214                                                            | 14.0                                                      | 2                                                               |
| SMLG120A              | SMLJ120A                  | 120                                        | 133 – 147                                                | 1    | 193                                                            | 15.6                                                      | 2                                                               |
| SMLG130               | SMLJ130                   | 130                                        | 144 – 176                                                | 1    | 231                                                            | 13.0                                                      | 2                                                               |
| SMLG130A              | SMLJ130A                  | 130                                        | 144 – 159                                                | 1    | 209                                                            | 14.4                                                      | 2                                                               |
| SMLG150               | SMLJ150                   | 150                                        | 167 – 204                                                | 1    | 268                                                            | 11.2                                                      | 2                                                               |
| SMLG150A              | SMLJ150A                  | 150                                        | 167 – 185                                                | 1    | 243                                                            | 12.4                                                      | 2                                                               |
| SMLG160               | SMLJ160                   | 160                                        | 178 – 218                                                | 1    | 287                                                            | 10.4                                                      | 2                                                               |
| SMLG160A              | SMLJ160A                  | 160                                        | 178 – 197                                                | 1    | 259                                                            | 11.6                                                      | 2                                                               |
| SMLG170               | SMLJ170                   | 170                                        | 189 – 231                                                | 1    | 304                                                            | 9.8                                                       | 2                                                               |
| SMLG170A              | SMLJ170A                  | 170                                        | 189 – 209                                                | 1    | 275                                                            | 11.0                                                      | 2                                                               |

- For Bidirectional device types indicate a C or CA suffix after the part number. (i.e.: SMLG170CA or SMLJ170C). Bidirectional capacitance is half that shown in Figure 4 at zero volts.
- Microsemi Corp's SML series (3000W) surface mountable packages are designed specifically for transient voltage suppression. The wide leads assure a large surface contact for good heat dissipation, and a low resistance path for surge current flow to ground. These high-speed transient voltage suppressors can be used to effectively protect sensitive components such as integrated circuits and MOS devices.

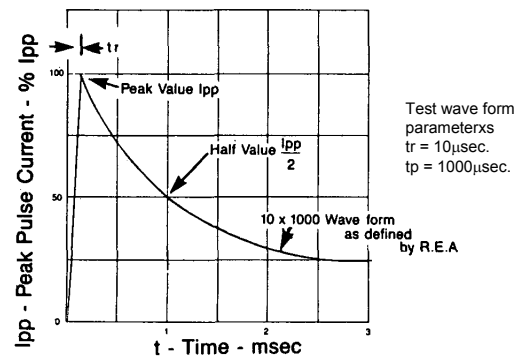
#### SYMBOLS & DEFINITIONS

| Symbol     | Definition                      | Symbol     | Definition                       |
|------------|---------------------------------|------------|----------------------------------|
| $V_{WM}$   | Working Peak (Standoff) Voltage | $I_{PP}$   | Peak Pulse Current               |
| $P_{PP}$   | Peak Pulse Power                | $V_C$      | Clamping Voltage                 |
| $V_{(BR)}$ | Breakdown Voltage               | $I_{(BR)}$ | Breakdown Current for $V_{(BR)}$ |
| $I_D$      | Standby Current                 |            |                                  |

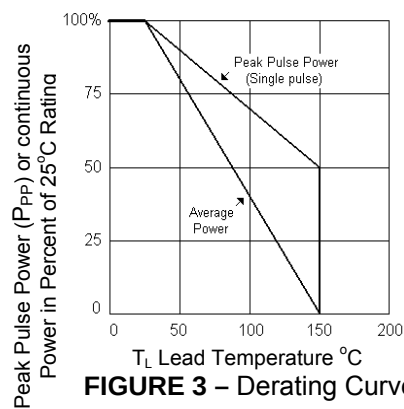
## GRAPHS



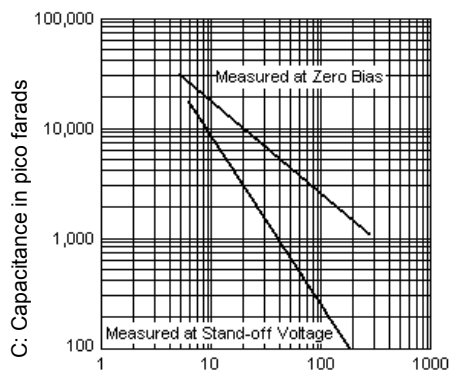
**FIGURE 1 – Peak Pulse Power vs. Pulse Time**



**FIGURE 2 – PULSE WAVEFORM**

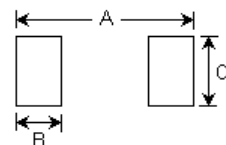


**FIGURE 3 – Derating Curve**



**FIGURE 4**  
Typical Capacitance vs.  
Breakdown Voltage

## PAD LAYOUT



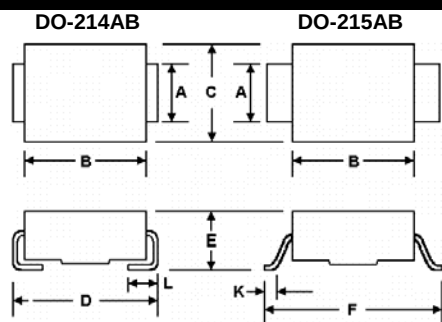
### SMLJ

|   | INCHES | mm   |
|---|--------|------|
| A | .390   | 9.90 |
| B | .110   | 2.79 |
| C | .150   | 3.81 |

### SMLG

|   | INCHES | mm    |
|---|--------|-------|
| A | 0.510  | 12.95 |
| B | 0.110  | 2.79  |
| C | 0.150  | 3.81  |

## PACKAGE DIMENSIONS



| DIMENSIONS IN INCHES      |      |      |      |      |      |       |       |       |
|---------------------------|------|------|------|------|------|-------|-------|-------|
|                           | A    | B    | C    | D    | E    | F     | K     | L     |
| MIN                       | .115 | .260 | .220 | .305 | .077 | .380  | .025  | .030  |
| MAX                       | .121 | .280 | .245 | .320 | .104 | .400  | .040  | .060  |
| DIMENSIONS IN MILLIMETERS |      |      |      |      |      |       |       |       |
|                           | A    | B    | C    | D    | E    | F     | K     | L     |
| MIN                       | 2.92 | 6.60 | 5.59 | 7.75 | 1.95 | 9.65  | 0.635 | .760  |
| MAX                       | 3.07 | 7.11 | 6.22 | 8.13 | 2.65 | 10.16 | 1.016 | 1.520 |

Typical Standoff Height: 0.004" – 0.008" (0.1mm – 0.2mm)