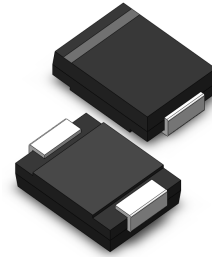


**VOLTAGE RANGE: 6.8- 440V**  
**POWER: 1500Watts**

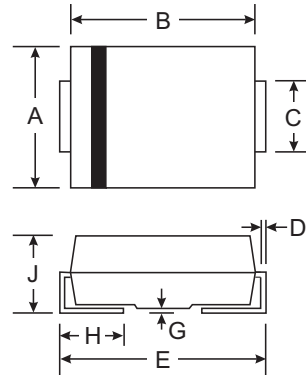
### Features

- Glass Passivated Die Construction
- Uni- and Bi-Directional Versions Available
- Excellent Clamping Capability
- Fast Response Time
- Plastic Material: UL Flammability Classification Rating 94V-0



### Mechanical Data

- Case: SMC/DO-214AB, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.21 grams (approx.)



| SMC/DO-214AB         |      |      |
|----------------------|------|------|
| Dim                  | Min  | Max  |
| A                    | 5.59 | 6.22 |
| B                    | 6.60 | 7.11 |
| C                    | 2.75 | 3.18 |
| D                    | 0.15 | 0.31 |
| E                    | 7.75 | 8.13 |
| G                    | 0.10 | 0.20 |
| H                    | 0.76 | 1.52 |
| J                    | 2.00 | 2.62 |
| All Dimensions in mm |      |      |

### Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

| Characteristic   | Symbol      | Value       | Unit             |
|--|-------------|-------------|------------------|
| Peak Pulse Power Dissipation<br>(Non repetitive current pulse derated above $T_A = 25^\circ\text{C}$ ) (Note 1)        | $P_{PK}$    | 1500        | W                |
| Peak Forward Surge Current, 8.3ms Single Half Sine Wave<br>Superimposed on Rated Load (JEDEC Method) (Notes 1, 2, & 3) | $I_{FSM}$   | 200         | A                |
| Steady State Power Dissipation @ $T_L = 75^\circ\text{C}$  | $PM_{(AV)}$ | 5.0         | W                |
| Instantaneous Forward Voltage @ $I_{PP} = 100\text{A}$<br>(Notes 1 & 3)  | $V_F$       | See Note 5  | V                |
| Operating Temperature Range  | $T_j$       | -55 to +150 | $^\circ\text{C}$ |
| Storage Temperature Range  | $T_{STG}$   | -55 to +175 | $^\circ\text{C}$ |

NOTES:1. Non-repetitive current pulse ,per Fig. 3 and derated above  $T_A=25^\circ\text{C}$  per Fig. 1.

2. Thermal Resistance junction to Lead.

3. 8.3ms single half-wave duty cycle=4 pulses per minutes maximum (uni-directional units only).

| TYPE      |            | Reverse Stand-Off Voltage | Breakdown Voltage Min. @I <sub>T</sub> | Breakdown Voltage Max. @ I <sub>T</sub> | Test Current        | Maximum Clamping Voltage @I <sub>PP</sub> | Peak Pulse Current  | Reverse Leakage @V <sub>RWM</sub> |
|-----------|------------|---------------------------|--|---|---------------------|---|---------------------|-----------------------------------|
| (Uni)     | (Bi)       | V <sub>RWM</sub> (V)      | V <sub>BR</sub> MIN(V)                 | V <sub>BR</sub> MAX(V)                  | I <sub>T</sub> (mA) | V <sub>C</sub> (V)                        | I <sub>PP</sub> (A) | I <sub>R</sub> (uA)               |
| SM15T6.8A | SM15T6.8CA | 5.80                      | 6.45                                   | 7.14                                    | 10                  | 10.5                                      | 144.8               | 1000.0                            |
| SM15T7.5A | SM15T7.5CA | 6.40                      | 7.13                                   | 7.88                                    | 10                  | 11.3                                      | 134.5               | 500.0                             |
| SM15T8.2A | SM15T8.2CA | 7.02                      | 7.79                                   | 8.61                                    | 10                  | 12.1                                      | 125.6               | 200.0                             |
| SM15T9.1A | SM15T9.1CA | 7.78                      | 8.65                                   | 9.55                                    | 1.0                 | 13.4                                      | 113.4               | 50.0                              |
| SM15T10A  | SM15T10CA  | 8.55                      | 9.50                                   | 10.5                                    | 1.0                 | 14.5                                      | 104.8               | 10.0                              |
| SM15T11A  | SM15T11CA  | 9.40                      | 10.5                                   | 11.6                                    | 1.0                 | 15.6                                      | 97.4                | 5.0                               |
| SM15T12A  | SM15T12CA  | 10.2                      | 11.4                                   | 12.6                                    | 1.0                 | 16.7                                      | 91.0                | 5.0                               |
| SM15T13A  | SM15T13CA  | 11.1                      | 12.4                                   | 13.7                                    | 1.0                 | 18.2                                      | 83.5                | 5.0                               |
| SM15T15A  | SM15T15CA  | 12.8                      | 14.3                                   | 15.8                                    | 1.0                 | 21.2                                      | 71.7                | 5.0                               |
| SM15T16A  | SM15T16CA  | 13.6                      | 15.2                                   | 16.8                                    | 1.0                 | 22.5                                      | 67.6                | 5.0                               |
| SM15T18A  | SM15T18CA  | 15.3                      | 17.1                                   | 18.9                                    | 1.0                 | 25.2                                      | 60.3                | 5.0                               |
| SM15T20A  | SM15T20CA  | 17.1                      | 19.0                                   | 21.0                                    | 1.0                 | 27.7                                      | 54.9                | 5.0                               |
| SM15T22A  | SM15T22CA  | 18.8                      | 20.9                                   | 23.1                                    | 1.0                 | 30.6                                      | 49.7                | 5.0                               |
| SM15T24A  | SM15T24CA  | 20.5                      | 22.8                                   | 25.2                                    | 1.0                 | 33.2                                      | 45.8                | 5.0                               |
| SM15T27A  | SM15T27CA  | 23.1                      | 25.7                                   | 28.4                                    | 1.0                 | 37.5                                      | 40.5                | 5.0                               |
| SM15T30A  | SM15T30CA  | 25.6                      | 28.5                                   | 31.5                                    | 1.0                 | 41.4                                      | 36.7                | 5.0                               |
| SM15T33A  | SM15T33CA  | 28.2                      | 31.4                                   | 34.7                                    | 1.0                 | 45.7                                      | 33.3                | 5.0                               |
| SM15T36A  | SM15T36CA  | 30.8                      | 34.2                                   | 37.8                                    | 1.0                 | 49.9                                      | 30.5                | 5.0                               |
| SM15T39A  | SM15T39CA  | 33.3                      | 37.1                                   | 41.0                                    | 1.0                 | 53.9                                      | 28.2                | 5.0                               |
| SM15T43A  | SM15T43CA  | 36.8                      | 40.9                                   | 45.2                                    | 1.0                 | 59.3                                      | 25.6                | 5.0                               |
| SM15T47A  | SM15T47CA  | 40.2                      | 44.7                                   | 49.4                                    | 1.0                 | 64.8                                      | 23.5                | 5.0                               |
| SM15T51A  | SM15T51CA  | 43.6                      | 48.5                                   | 53.6                                    | 1.0                 | 70.1                                      | 21.7                | 5.0                               |
| SM15T56A  | SM15T56CA  | 47.8                      | 53.2                                   | 58.8                                    | 1.0                 | 77.0                                      | 19.7                | 5.0                               |
| SM15T62A  | SM15T62CA  | 53.0                      | 58.9                                   | 65.1                                    | 1.0                 | 85.0                                      | 17.9                | 5.0                               |
| SM15T68A  | SM15T68CA  | 58.1                      | 64.6                                   | 71.4                                    | 1.0                 | 92.0                                      | 16.5                | 5.0                               |
| SM15T75A  | SM15T75CA  | 64.1                      | 71.3                                   | 78.8                                    | 1.0                 | 103                                       | 14.8                | 5.0                               |
| SM15T82A  | SM15T82CA  | 70.1                      | 77.9                                   | 86.1                                    | 1.0                 | 113                                       | 13.5                | 5.0                               |
| SM15T91A  | SM15T91CA  | 77.8                      | 86.5                                   | 95.5                                    | 1.0                 | 125                                       | 12.2                | 5.0                               |
| SM15T100A | SM15T100CA | 85.5                      | 95.0                                   | 105                                     | 1.0                 | 137                                       | 11.1                | 5.0                               |
| SM15T110A | SM15T110CA | 94.0                      | 105                                    | 116                                     | 1.0                 | 152                                       | 10.0                | 5.0                               |
| SM15T120A | SM15T120CA | 102                       | 114                                    | 126                                     | 1.0                 | 165                                       | 9.2                 | 5.0                               |
| SM15T130A | SM15T130CA | 111                       | 124                                    | 137                                     | 1.0                 | 179                                       | 8.5                 | 5.0                               |
| SM15T150A | SM15T150CA | 128                       | 143                                    | 158                                     | 1.0                 | 207                                       | 7.3                 | 5.0                               |
| SM15T170A | SM15T170CA | 145                       | 162                                    | 179                                     | 1.0                 | 234                                       | 6.5                 | 5.0                               |
| SM15T180A | SM15T180CA | 154                       | 171                                    | 189                                     | 1.0                 | 246                                       | 6.2                 | 5.0                               |
| SM15T200A | SM15T200CA | 171                       | 190                                    | 210                                     | 1.0                 | 274                                       | 5.5                 | 5.0                               |
| SM15T220A | SM15T220CA | 185                       | 209                                    | 231                                     | 1.0                 | 328                                       | 4.6                 | 5.0                               |
| SM15T250A | SM15T250CA | 214                       | 237                                    | 263                                     | 1.0                 | 344                                       | 4.4                 | 5.0                               |
| SM15T300A | SM15T300CA | 256                       | 285                                    | 315                                     | 1.0                 | 414                                       | 3.7                 | 5.0                               |
| SM15T350A | SM15T350CA | 300                       | 333                                    | 368                                     | 1.0                 | 482                                       | 3.2                 | 5.0                               |
| SM15T400A | SM15T400CA | 342                       | 380                                    | 420                                     | 1.0                 | 548                                       | 2.8                 | 5.0                               |
| SM15T440A | SM15T440CA | 376                       | 418                                    | 462                                     | 1.0                 | 600                                       | 2.5                 | 5.0                               |



**Ratings and Characteristic Curves  $T_A=25^\circ\text{C}$  unless otherwise noted**

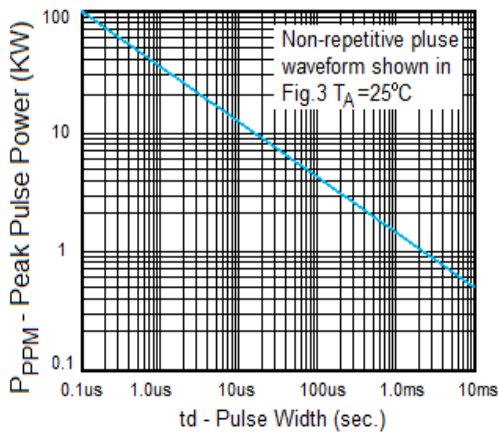


Fig. 1 Peak Pulse Power Rating

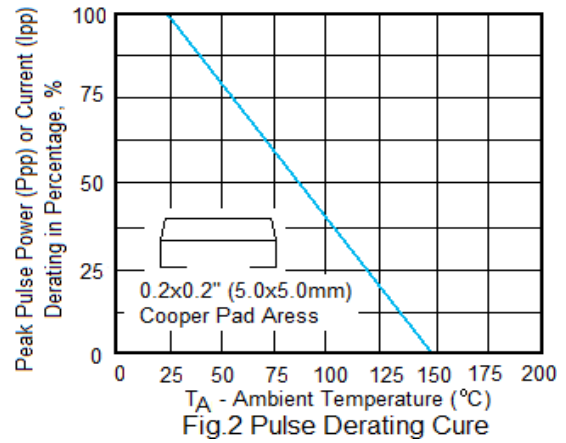


Fig. 2 Pulse Derating Curve

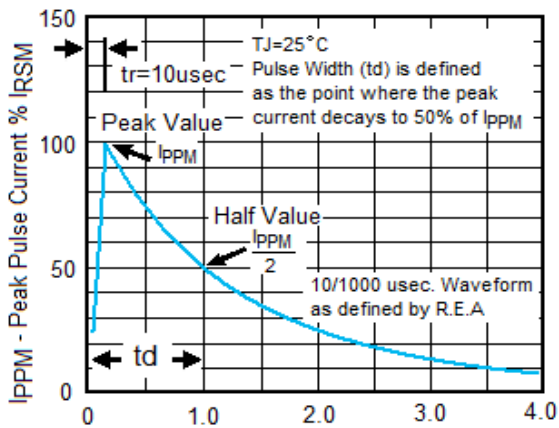


Fig. 3 Pulse Waveform

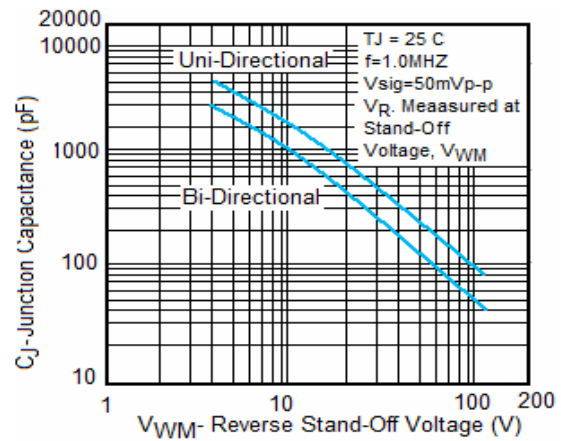


Fig. 4- Typical Junction Capacitance