

## Transient Voltage Suppressor Diodes

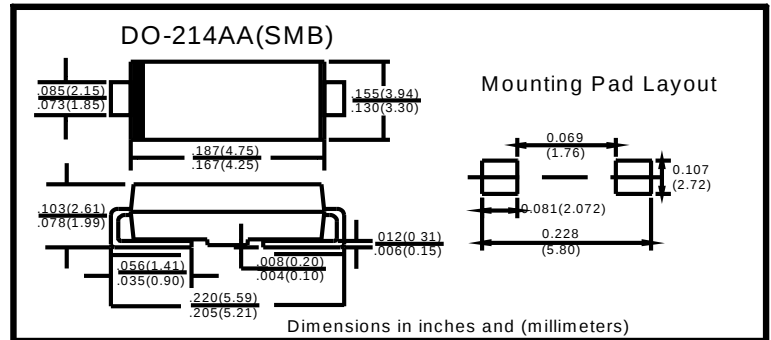
### ■ Features

$P_{PP}$  600W  
 $V_{BR}$  5.0V-440V  
 AEC-Q101 qualified

### ■ Applications

Clamping Voltage

### ■ Outline Dimensions and Mark



### ■ Limiting Values (Absolute Maximum Rating)

| Item                                             | Symbol         | Unit | Conditions                                       | Max            |
|--------------------------------------------------|----------------|------|--------------------------------------------------|----------------|
| Peak power dissipation                           | $P_{PPM}$      | W    | with a 10/1000us waveform                        | 600            |
| Peak pulse current                               | $I_{PPM}$      | A    | with a 10/1000us waveform                        | See Next Table |
| Peak forward surge current                       | $I_{FSM}$      | A    | 8.3 ms single half sine-wave unidirectional only | 100            |
| Operating junction and storage temperature range | $T_J, T_{STG}$ |      |                                                  | -55 to +150    |

### ■ Electrical Characteristics ( $T_A=25^\circ\text{C}$ Unless other wise pecified)

| Item                                  | Symbol          | Unit               | Conditions                     | Max |
|---------------------------------------|-----------------|--------------------|--------------------------------|-----|
| Maximum instantaneous forward Voltage | $V_F$           | V                  | at 50A for unidirectional only | 3.5 |
| Thermal resistance                    | $R_{\theta JL}$ | $^\circ\text{C/W}$ | junction to lead               | 20  |
|                                       | $R_{\theta JA}$ | $^\circ\text{C/W}$ | junction to ambient            | 100 |

#### Notes:

- (1) Non-repetitive current pulse, per Fig. 3 and derated above  $T_A = 25^\circ\text{C}$  per Fig.2.
- (2) Mounted on 0.2 x 0.2" (5.0 x 5.0 mm) copper pads to each terminal



# SMBJ5.0 thru 440CA

## ■ Electrical Characteristics (Ta=25 °C)

| Part Number<br>(Uni) | Part Number<br>(Bi)      | Breakdown Voltage $V_{BR}@I_T$ |         |                  | Maximum<br>Reverse<br>Leakage $I_R^{(3)}$<br>( $\mu A$ ) | Working Peak<br>Reverse<br>Voltage<br>$V_{RWM}$ (V) | Maximum<br>Reverse Surge<br>Current $I_{PP}^{(2)}$<br>(A) | Maximum<br>Clamping<br>Voltage $V_C$<br>@ $I_{PP}$<br>(V) |
|----------------------|--------------------------|--------------------------------|---------|------------------|----------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|
|                      |                          | Min(V)                         | Max (V) | $I_T^{(1)}$ (mA) |                                                          |                                                     |                                                           |                                                           |
| SMBJ5.0              | SMBJ5.0C                 | 6.40                           | 7.30    | 10               | 800                                                      | 5.0                                                 | 62.5                                                      | 9.6                                                       |
| SMBJ5.0A             | SMBJ5.0CA <sup>(4)</sup> | 6.40                           | 7.07    | 10               | 800                                                      | 5.0                                                 | 65.2                                                      | 9.2                                                       |
| SMBJ6.0              | SMBJ6.0C                 | 6.67                           | 8.15    | 10               | 800                                                      | 6.0                                                 | 52.6                                                      | 11.4                                                      |
| SMBJ6.0A             | SMBJ6.0CA                | 6.67                           | 7.37    | 10               | 800                                                      | 6.0                                                 | 58.3                                                      | 10.3                                                      |
| SMBJ6.5              | SMBJ6.5C                 | 7.22                           | 8.82    | 10               | 500                                                      | 6.5                                                 | 48.8                                                      | 12.3                                                      |
| SMBJ6.5A             | SMBJ6.5CA                | 7.22                           | 7.98    | 10               | 500                                                      | 6.5                                                 | 53.6                                                      | 11.2                                                      |
| SMBJ7.0              | SMBJ7.0C                 | 7.78                           | 9.51    | 10               | 200                                                      | 7.0                                                 | 45.1                                                      | 13.3                                                      |
| SMBJ7.0A             | SMBJ7.0CA                | 7.78                           | 8.60    | 10               | 200                                                      | 7.0                                                 | 50.0                                                      | 12.0                                                      |
| SMBJ7.5              | SMBJ7.5C                 | 8.33                           | 10.20   | 1.0              | 100                                                      | 7.5                                                 | 42.0                                                      | 14.3                                                      |
| SMBJ7.5A             | SMBJ7.5CA                | 8.33                           | 9.21    | 1.0              | 100                                                      | 7.5                                                 | 46.5                                                      | 12.9                                                      |
| SMBJ8.0              | SMBJ8.0C                 | 8.89                           | 10.90   | 1.0              | 50                                                       | 8.0                                                 | 40.0                                                      | 15.0                                                      |
| SMBJ8.0A             | SMBJ8.0CA                | 8.89                           | 9.83    | 1.0              | 50                                                       | 8.0                                                 | 44.1                                                      | 13.6                                                      |
| SMBJ8.5              | SMBJ8.5C                 | 9.44                           | 11.50   | 1.0              | 10                                                       | 8.5                                                 | 37.7                                                      | 15.9                                                      |
| SMBJ8.5A             | SMBJ8.5CA                | 9.44                           | 10.4    | 1.0              | 10                                                       | 8.5                                                 | 41.7                                                      | 14.4                                                      |
| SMBJ9.0              | SMBJ9.0C                 | 10.00                          | 12.20   | 1.0              | 5.0                                                      | 9.0                                                 | 35.5                                                      | 16.9                                                      |
| SMBJ9.0A             | SMBJ9.0CA                | 10.00                          | 11.10   | 1.0              | 5.0                                                      | 9.0                                                 | 39.0                                                      | 15.4                                                      |
| SMBJ10               | SMBJ10C                  | 11.10                          | 13.60   | 1.0              | 5.0                                                      | 10.0                                                | 31.9                                                      | 18.8                                                      |
| SMBJ10A              | SMBJ10CA                 | 11.10                          | 12.30   | 1.0              | 5.0                                                      | 10.0                                                | 35.3                                                      | 17.0                                                      |
| SMBJ11               | SMBJ11C                  | 12.20                          | 14.90   | 1.0              | 5.0                                                      | 11.0                                                | 29.8                                                      | 20.1                                                      |
| SMBJ11A              | SMBJ11CA                 | 12.20                          | 13.50   | 1.0              | 5.0                                                      | 11.0                                                | 33.0                                                      | 18.2                                                      |
| SMBJ12               | SMBJ12C                  | 13.30                          | 16.30   | 1.0              | 5.0                                                      | 12.0                                                | 27.3                                                      | 22.0                                                      |
| SMBJ12A              | SMBJ12CA                 | 13.30                          | 14.70   | 1.0              | 5.0                                                      | 12.0                                                | 30.2                                                      | 19.9                                                      |
| SMBJ13               | SMBJ13C                  | 14.40                          | 17.60   | 1.0              | 5.0                                                      | 13.0                                                | 25.2                                                      | 23.8                                                      |
| SMBJ13A              | SMBJ13CA                 | 14.40                          | 15.90   | 1.0              | 5.0                                                      | 13.0                                                | 27.9                                                      | 21.5                                                      |
| SMBJ14               | SMBJ14C                  | 15.60                          | 19.10   | 1.0              | 5.0                                                      | 14.0                                                | 23.2                                                      | 25.8                                                      |
| SMBJ14A              | SMBJ14CA                 | 15.60                          | 17.20   | 1.0              | 5.0                                                      | 14.0                                                | 25.9                                                      | 23.2                                                      |
| SMBJ15               | SMBJ15C                  | 16.70                          | 20.40   | 1.0              | 5.0                                                      | 15.0                                                | 22.3                                                      | 26.9                                                      |
| SMBJ15A              | SMBJ15CA                 | 16.70                          | 18.50   | 1.0              | 5.0                                                      | 15.0                                                | 24.6                                                      | 24.4                                                      |
| SMBJ16               | SMBJ16C                  | 17.80                          | 21.80   | 1.0              | 5.0                                                      | 16.0                                                | 20.8                                                      | 28.8                                                      |
| SMBJ16A              | SMBJ16CA                 | 17.80                          | 19.70   | 1.0              | 5.0                                                      | 16.0                                                | 23.1                                                      | 26.0                                                      |
| SMBJ17               | SMBJ17C                  | 18.90                          | 23.10   | 1.0              | 5.0                                                      | 17.0                                                | 19.6                                                      | 30.5                                                      |
| SMBJ17A              | SMBJ17CA                 | 18.90                          | 20.90   | 1.0              | 5.0                                                      | 17.0                                                | 21.7                                                      | 27.6                                                      |
| SMBJ18               | SMBJ18C                  | 20.00                          | 24.40   | 1.0              | 5.0                                                      | 18.0                                                | 18.6                                                      | 32.2                                                      |
| SMBJ18A              | SMBJ18CA                 | 20.00                          | 22.10   | 1.0              | 5.0                                                      | 18.0                                                | 20.5                                                      | 29.2                                                      |
| SMBJ19               | SMBJ19C                  | 21.10                          | 25.70   | 1.0              | 5.0                                                      | 19.0                                                | 17.6                                                      | 34.0                                                      |
| SMBJ19A              | SMBJ19CA                 | 21.10                          | 23.30   | 1.0              | 5.0                                                      | 19.0                                                | 19.5                                                      | 30.8                                                      |
| SMBJ20               | SMBJ20C                  | 22.20                          | 27.10   | 1.0              | 5.0                                                      | 20.0                                                | 16.7                                                      | 35.8                                                      |
| SMBJ20A              | SMBJ20CA                 | 22.20                          | 24.50   | 1.0              | 5.0                                                      | 20.0                                                | 18.5                                                      | 32.4                                                      |
| SMBJ22               | SMBJ22C                  | 24.40                          | 29.80   | 1.0              | 5.0                                                      | 22.0                                                | 15.2                                                      | 39.4                                                      |
| SMBJ22A              | SMBJ22CA                 | 24.40                          | 26.90   | 1.0              | 5.0                                                      | 22.0                                                | 16.9                                                      | 35.5                                                      |



# SMBJ5.0 thru 440CA

## ■ Electrical Characteristics (Ta=25°C)

| Part Number<br>(Uni) | Part Number<br>(Bi) | Breakdown Voltage $V_{BR}@I_T$ |         |                  | Maximum<br>Reverse<br>Leakage $I_R^{(3)}$<br>( $\mu A$ ) | Working Peak<br>Reverse<br>Voltage<br>$V_{RWM}$ (V) | Maximum<br>Reverse Surge<br>Current $I_{PP}^{(2)}$<br>(A) | Maximum<br>Clamping<br>Voltage $V_C$<br>@ $I_{PP}$<br>(V) |
|----------------------|---------------------|--------------------------------|---------|------------------|----------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|
|                      |                     | Min(V)                         | Max (V) | $I_T^{(1)}$ (mA) |                                                          |                                                     |                                                           |                                                           |
| SMBJ24               | SMBJ24C             | 26.70                          | 32.60   | 1.0              | 5 0                                                      | 24.0                                                | 14.0                                                      | 43.0                                                      |
| SMBJ24A              | SMBJ24CA            | 26.70                          | 29.50   | 1.0              | 5 0                                                      | 24.0                                                | 15.4                                                      | 38.9                                                      |
| SMBJ26               | SMBJ26C             | 28.90                          | 35.30   | 1.0              | 5 0                                                      | 26.0                                                | 12.9                                                      | 46.6                                                      |
| SMBJ26A              | SMBJ26CA            | 28.90                          | 31.90   | 1.0              | 5 0                                                      | 26.0                                                | 14.3                                                      | 42.1                                                      |
| SMBJ28               | SMBJ28C             | 31.10                          | 38.00   | 1.0              | 5 0                                                      | 28.0                                                | 12.0                                                      | 50.0                                                      |
| SMBJ28A              | SMBJ28CA            | 31.10                          | 34.40   | 1.0              | 5 0                                                      | 28.0                                                | 13.2                                                      | 45.4                                                      |
| SMBJ30               | SMBJ30C             | 33.30                          | 40.70   | 1.0              | 5 0                                                      | 30.0                                                | 11.2                                                      | 53.5                                                      |
| SMBJ30A              | SMBJ30CA            | 33.30                          | 36.80   | 1.0              | 5 0                                                      | 30.0                                                | 12.4                                                      | 48.4                                                      |
| SMBJ33               | SMBJ33C             | 36.70                          | 44.90   | 1.0              | 5 0                                                      | 33.0                                                | 10.2                                                      | 59.0                                                      |
| SMBJ33A              | SMBJ33CA            | 36.70                          | 40.60   | 1.0              | 5 0                                                      | 33.0                                                | 11.3                                                      | 53.3                                                      |
| SMBJ36               | SMBJ36C             | 40.00                          | 48.90   | 1.0              | 5 0                                                      | 36.0                                                | 9.3                                                       | 64.3                                                      |
| SMBJ36A              | SMBJ36CA            | 40.00                          | 44.20   | 1.0              | 5 0                                                      | 36.0                                                | 10.3                                                      | 58.1                                                      |
| SMBJ40               | SMBJ40C             | 44.40                          | 54.30   | 1.0              | 5 0                                                      | 40.0                                                | 8.4                                                       | 71.4                                                      |
| SMBJ40A              | SMBJ40CA            | 44.40                          | 49.10   | 1.0              | 5 0                                                      | 40.0                                                | 9.3                                                       | 64.5                                                      |
| SMBJ43               | SMBJ43C             | 47.80                          | 58.40   | 1.0              | 5 0                                                      | 43.0                                                | 7.8                                                       | 76.7                                                      |
| SMBJ43A              | SMBJ43CA            | 47.80                          | 52.80   | 1.0              | 5 0                                                      | 43.0                                                | 8.6                                                       | 69.4                                                      |
| SMBJ45               | SMBJ45C             | 50.00                          | 61.10   | 1.0              | 5 0                                                      | 45.0                                                | 7.5                                                       | 80.3                                                      |
| SMBJ45A              | SMBJ45CA            | 50.00                          | 55.30   | 1.0              | 5 0                                                      | 45.0                                                | 8.3                                                       | 72.7                                                      |
| SMBJ48               | SMBJ48C             | 53.30                          | 65.10   | 1.0              | 5 0                                                      | 48.0                                                | 7.0                                                       | 85.5                                                      |
| SMBJ48A              | SMBJ48CA            | 53.30                          | 58.90   | 1.0              | 5 0                                                      | 48.0                                                | 7.8                                                       | 77.4                                                      |
| SMBJ51               | SMBJ51C             | 56.70                          | 69.30   | 1.0              | 5 0                                                      | 51.0                                                | 6.6                                                       | 91.1                                                      |
| SMBJ51A              | SMBJ51CA            | 56.70                          | 62.70   | 1.0              | 5 0                                                      | 51.0                                                | 7.3                                                       | 82.4                                                      |
| SMBJ54               | SMBJ54C             | 60.00                          | 73.30   | 1.0              | 5 0                                                      | 54.0                                                | 6.2                                                       | 96.3                                                      |
| SMBJ54A              | SMBJ54CA            | 60.00                          | 66.30   | 1.0              | 5 0                                                      | 54.0                                                | 6.9                                                       | 87.1                                                      |
| SMBJ58               | SMBJ58C             | 64.40                          | 78.70   | 1.0              | 5 0                                                      | 58.0                                                | 5.8                                                       | 103.0                                                     |
| SMBJ58A              | SMBJ58CA            | 64.40                          | 71.20   | 1.0              | 5 0                                                      | 58.0                                                | 6.4                                                       | 93.6                                                      |
| SMBJ60               | SMBJ60C             | 66.70                          | 81.50   | 1.0              | 5 0                                                      | 60.0                                                | 5.6                                                       | 107.0                                                     |
| SMBJ60A              | SMBJ60CA            | 66.70                          | 73.70   | 1.0              | 5 0                                                      | 60.0                                                | 6.2                                                       | 96.8                                                      |
| SMBJ64               | SMBJ64C             | 71.10                          | 86.90   | 1.0              | 5 0                                                      | 64.0                                                | 5.2                                                       | 114.0                                                     |
| SMBJ64A              | SMBJ64CA            | 71.10                          | 78.60   | 1.0              | 5 0                                                      | 64.0                                                | 5.8                                                       | 103.0                                                     |
| SMBJ70               | SMBJ70C             | 77.80                          | 95.10   | 1.0              | 5 0                                                      | 70.0                                                | 4.8                                                       | 125.0                                                     |
| SMBJ70A              | SMBJ70CA            | 77.80                          | 86.00   | 1.0              | 5 0                                                      | 70.0                                                | 5.3                                                       | 113.0                                                     |
| SMBJ75               | SMBJ75C             | 83.30                          | 102.00  | 1.0              | 5 0                                                      | 75.0                                                | 4.5                                                       | 134.0                                                     |
| SMBJ75A              | SMBJ75CA            | 83.30                          | 92.10   | 1.0              | 5 0                                                      | 75.0                                                | 5.0                                                       | 121.0                                                     |
| SMBJ78               | SMBJ78C             | 86.70                          | 106.00  | 1.0              | 5 0                                                      | 78.0                                                | 4.3                                                       | 139.0                                                     |
| SMBJ78A              | SMBJ78CA            | 86.70                          | 95.80   | 1.0              | 5 0                                                      | 78.0                                                | 4.8                                                       | 126.0                                                     |
| SMBJ80               | SMBJ80C             | 88.90                          | 108.80  | 1.0              | 5 0                                                      | 80.0                                                | 4.2                                                       | 143.2                                                     |
| SMBJ80A              | SMBJ80CA            | 88.80                          | 97.60   | 1.0              | 5 0                                                      | 80.0                                                | 4.6                                                       | 129.6                                                     |

## ■ Electrical Characteristics (Ta=25°C)

| Part Number<br>(Uni) | Part Number<br>(Bi) | Breakdown Voltage $V_{BR}@I_T$ |         |                 | Maximum<br>Reverse<br>Leakage $I_R^{(3)}$<br>( $\mu A$ ) | Working Peak<br>Reverse<br>Voltage<br>$V_{RWM}$ (V) | Maximum<br>Reverse Surge<br>Current $I_{PP}^{(2)}$<br>(A) | Maximum<br>Clamping<br>Voltage $V_C$<br>@ $I_{PP}$<br>(V) |
|----------------------|---------------------|--------------------------------|---------|-----------------|----------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|
|                      |                     | Min(V)                         | Max (V) | $IT^{(1)}$ (mA) |                                                          |                                                     |                                                           |                                                           |
| SMBJ85               | SMBJ85C             | 94.40                          | 115.00  | 1.0             | 5.0                                                      | 85.0                                                | 4.0                                                       | 151.0                                                     |
| SMBJ85A              | SMBJ85CA            | 94.40                          | 104.00  | 1.0             | 5.0                                                      | 85.0                                                | 4.4                                                       | 137.0                                                     |
| SMBJ90               | SMBJ90C             | 100.00                         | 122.00  | 1.0             | 5.0                                                      | 90.0                                                | 3.7                                                       | 160.0                                                     |
| SMBJ90A              | SMBJ90CA            | 100.00                         | 111.00  | 1.0             | 5.0                                                      | 90.0                                                | 4.1                                                       | 146.0                                                     |
| SMBJ100              | SMBJ100C            | 111.00                         | 136.00  | 1.0             | 5.0                                                      | 100.0                                               | 3.3                                                       | 179.0                                                     |
| SMBJ100A             | SMBJ100CA           | 111.00                         | 123.00  | 1.0             | 5.0                                                      | 100.0                                               | 3.7                                                       | 162.0                                                     |
| SMBJ110              | SMBJ110C            | 122.00                         | 149.00  | 1.0             | 5.0                                                      | 110.0                                               | 3.1                                                       | 196.0                                                     |
| SMBJ110A             | SMBJ110CA           | 122.00                         | 135.00  | 1.0             | 5.0                                                      | 110.0                                               | 3.4                                                       | 177.0                                                     |
| SMBJ120              | SMBJ120C            | 133.00                         | 163.00  | 1.0             | 5.0                                                      | 120.0                                               | 2.8                                                       | 214.0                                                     |
| SMBJ120A             | SMBJ120CA           | 133.00                         | 147.00  | 1.0             | 5.0                                                      | 120.0                                               | 3.1                                                       | 193.0                                                     |
| SMBJ130              | SMBJ130CA           | 144.00                         | 176.00  | 1.0             | 5.0                                                      | 130.0                                               | 2.6                                                       | 231.0                                                     |
| SMBJ130A             | SMBJ130CA           | 144.00                         | 159.00  | 1.0             | 5.0                                                      | 130.0                                               | 2.9                                                       | 209.0                                                     |
| SMBJ140              | SMBJ140C            | 155.70                         | 190.40  | 1.0             | 5.0                                                      | 140.0                                               | 2.4                                                       | 250.6                                                     |
| SMBJ140A             | SMBJ140CA           | 155.00                         | 171.00  | 1.0             | 5.0                                                      | 140.0                                               | 2.6                                                       | 226.8                                                     |
| SMBJ150              | SMBJ150C            | 167.00                         | 204.00  | 1.0             | 5.0                                                      | 150.0                                               | 2.2                                                       | 268.0                                                     |
| SMBJ150A             | SMBJ150CA           | 167.00                         | 185.00  | 1.0             | 5.0                                                      | 150.0                                               | 2.5                                                       | 243.0                                                     |
| SMBJ160              | SMBJ160C            | 178.00                         | 218.00  | 1.0             | 5.0                                                      | 160.0                                               | 2.1                                                       | 287.0                                                     |
| SMBJ160A             | SMBJ160CA           | 178.00                         | 197.00  | 1.0             | 5.0                                                      | 160.0                                               | 2.3                                                       | 259.0                                                     |
| SMBJ170              | SMBJ170C            | 189.00                         | 231.00  | 1.0             | 5.0                                                      | 170.0                                               | 2.0                                                       | 304.0                                                     |
| SMBJ170A             | SMBJ170CA           | 189.00                         | 209.00  | 1.0             | 5.0                                                      | 170.0                                               | 2.2                                                       | 275.0                                                     |
| SMBJ180              | SMBJ180C            | 200.20                         | 244.80  | 1.0             | 5.0                                                      | 180.0                                               | 1.8                                                       | 322.2                                                     |
| SMBJ180A             | SMBJ180CA           | 200.00                         | 220.00  | 1.0             | 5.0                                                      | 180.0                                               | 2.1                                                       | 291.6                                                     |
| SMBJ190              | SMBJ190C            | 211.30                         | 258.40  | 1.0             | 5.0                                                      | 190.0                                               | 1.7                                                       | 340.1                                                     |
| SMBJ190A             | SMBJ190CA           | 211.00                         | 232.00  | 1.0             | 5.0                                                      | 190.0                                               | 1.9                                                       | 307.8                                                     |
| SMBJ200A             | SMBJ200CA           | 224.00                         | 247.00  | 1.0             | 5.0                                                      | 200.0                                               | 1.8                                                       | 324.0                                                     |
| SMBJ220A             | SMBJ220CA           | 246.00                         | 272.00  | 1.0             | 5.0                                                      | 220.0                                               | 1.7                                                       | 356.0                                                     |
| SMBJ250A             | SMBJ250CA           | 279.00                         | 309.00  | 1.0             | 5.0                                                      | 250.0                                               | 1.5                                                       | 405.0                                                     |
| SMBJ300A             | SMBJ300CA           | 335.00                         | 371.00  | 1.0             | 5.0                                                      | 300.0                                               | 1.2                                                       | 486.0                                                     |
| SMBJ350A             | SMBJ350CA           | 391.00                         | 432.00  | 1.0             | 5.0                                                      | 350.0                                               | 1.0                                                       | 567.0                                                     |
| SMBJ400A             | SMBJ400CA           | 447.00                         | 494.00  | 1.0             | 5.0                                                      | 400.0                                               | 0.9                                                       | 648.0                                                     |
| SMBJ440A             | SMBJ440CA           | 492.00                         | 543.00  | 1.0             | 5.0                                                      | 440.0                                               | 0.8                                                       | 713.0                                                     |

### Notes:

- (1) Pulse test:  $t_p = 50ms$
- (2) Surge current waveform per Fig. 3 and derated per Fig.2.
- (3) For bi-directional types having  $V_{WM}$  of 10 V and less, the  $I_R$  limit is doubled
- (4) For the bi-directional SMBJ5.0CA, the maximum  $V_{BR}$  is 7.25 V

## ■ Characteristics(Typical)

FIG1: Peak Pulse Power Rating Curve

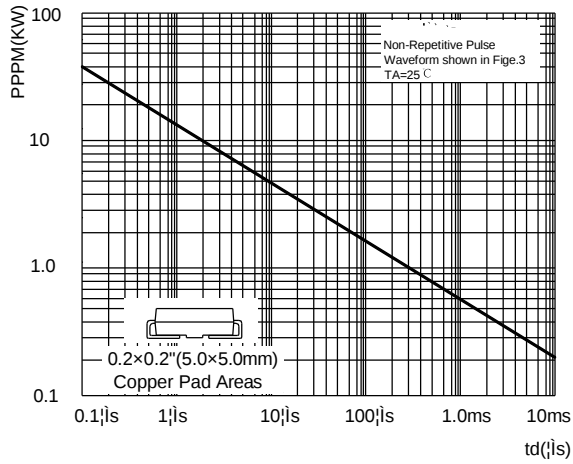


FIG2: Pulse Power or Current vs. Initial Junction Temperature

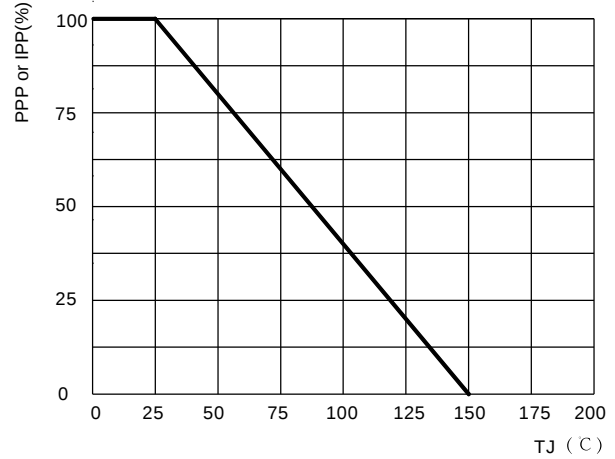


FIG3: Pulse Waveform

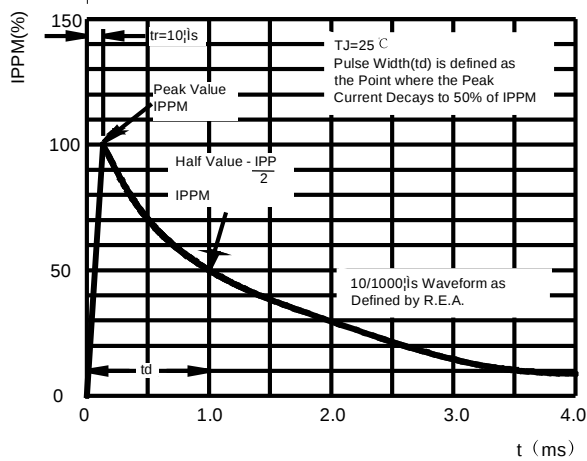


FIG4: Typical Transient Thermal Impedance

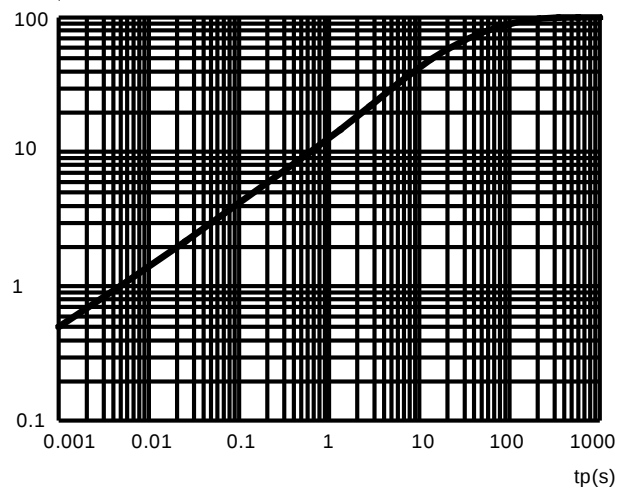


FIG5: Maximum Non-Repetitive Surge Current

