



## 瞬变电压抑制二极管 Transient Voltage Suppressor Diodes

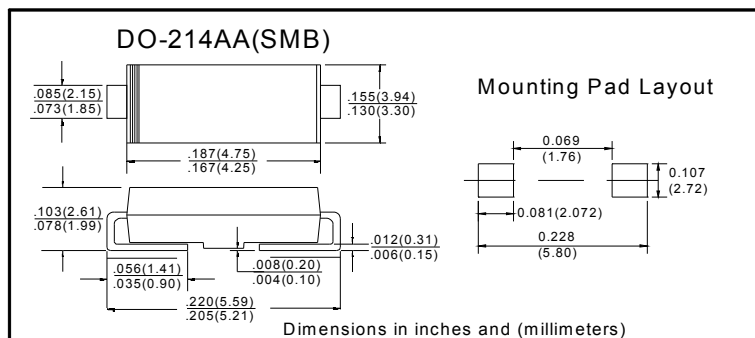
## ■特征 Features

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

## ■用途 Applications

- 箝位电压用 Clamping Voltage

## ■外形尺寸和印记 Outline Dimensions and Mark



## ■极限值（绝对最大额定值）

## Limiting Values (Absolute Maximum Rating)

| 参数名称<br>Item                                                    | 符号<br>Symbol   | 单位<br>Unit         | 条件<br>Conditions                                                                     | 最大值<br>Max              |
|-----------------------------------------------------------------|----------------|--------------------|--------------------------------------------------------------------------------------|-------------------------|
| 最大损耗功率(1)(2)<br>Peak power dissipation                          | $P_{PPM}$      | W                  | 在10/1000us 波形下测试<br>with a 10/1000us waveform                                        | 600                     |
| 最大脉冲电流(1)<br>Peak pulse current                                 | $I_{PPM}$      | A                  | 在10/1000us 波形下测试<br>with a 10/1000us waveform                                        | 见下面表格<br>See Next Table |
| 功率损耗<br>Power dissipation                                       | $P_D$          | W                  | 无限散热片@ $T_L=75^{\circ}\text{C}$<br>On infinite heat sink at $T_L=75^{\circ}\text{C}$ | 5.0                     |
| 最大正向浪涌电流(2)<br>Peak forward surge current                       | $I_{FSM}$      | A                  | 8.3ms正弦半波, 仅单向型<br>8.3 ms single half sine-wave unidirectional only                  | 100                     |
| 工作结温和存储温度范围<br>Operating junction and storage temperature range | $T_J, T_{STG}$ | $^{\circ}\text{C}$ |                                                                                      | -55 to +150             |

■电特性（ $T_A=25^{\circ}\text{C}$  除非另有规定）Electrical Characteristics ( $T_A=25^{\circ}\text{C}$  Unless otherwise specified)

| 参数名称<br>Item                                         | 符号<br>Symbol    | 单位<br>Unit                  | 条件<br>Conditions                                | 最大值<br>Max |
|------------------------------------------------------|-----------------|-----------------------------|-------------------------------------------------|------------|
| 最大瞬间正向电压(3)<br>Maximum instantaneous forward Voltage | $V_F$           | V                           | 在50A下测试, 仅单向型<br>at 50A for unidirectional only | 3.5/5.0    |
| 典型热阻<br>Thermal resistance                           | $R_{\theta JL}$ | $^{\circ}\text{C}/\text{W}$ | 结到引线<br>junction to lead                        | 20         |
|                                                      | $R_{\theta JA}$ | $^{\circ}\text{C}/\text{W}$ | 结到环境<br>junction to ambient                     | 100        |

## 备注: Notes:

(1) 不重复脉冲电流, 如图3, 在 $T_A=25^{\circ}\text{C}$ 下功率降额曲线见如图2。

Non-repetitive current pulse, per Fig. 3 and derated above  $T_A=25^{\circ}\text{C}$  per Fig.2.

(2) 每个端子安装在 0.2 x 0.2" (5.0 x 5.0 mm)铜焊盘上

Mounted on 0.2 x 0.2" (5.0 x 5.0 mm) copper pads to each terminal

(3) 当产品型号 $V_{BR}<200\text{V}$ 时,  $V_F<3.5\text{V}$ ,  $V_{BR}>201\text{V}$ 时,  $V_F<5.0\text{V}$

$V_F<3.5\text{V}$  for devices of  $V_{BR}<200\text{V}$  and  $V_F<5.0\text{V}$  for devices of  $V_{BR}>201\text{V}$

■ 电性参数 ( $T_A=25^{\circ}\text{C}$  除非另有规定)

Electrical Characteristics ( $T_A = 25^{\circ}\text{C}$  unless otherwise noted)

| 产品型号<br>(单向)<br>Part Number<br>(Uni) | 产品型号<br>(双向)<br>Part Number<br>(Bi) | 击穿电压 $V_{BR}@I_T$<br>Breakdown Voltage $V_{BR}@I_T$ |               |                          | 最大反向漏电流 $I_R@V_{WM}$<br>Maximum<br>Reverse<br>Leakage $I_R^{(3)}$<br>( $\mu\text{A}$ ) | 最大工作电压<br>$V_{RWM}$<br>Working Peak<br>Reverse<br>Voltage<br>$V_{RWM}$ (V) | 最大反向浪涌<br>电流 IPP<br>Maximum<br>Reverse Surge<br>Current IPP <sup>(2)</sup><br>(A) | 最大箝位电压<br>Maximum<br>Clamping<br>Voltage $V_c$<br>@ $I_{PP}$<br>(V) |
|--------------------------------------|-------------------------------------|-----------------------------------------------------|---------------|--------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------|
|                                      |                                     | 最小<br>Min(V)                                        | 最大<br>Max (V) | 测试电流<br>$I_T^{(1)}$ (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                                                                |

■ 电性参数 ( $T_A=25^{\circ}\text{C}$  除非另有规定)

Electrical Characteristics ( $T_A = 25^{\circ}\text{C}$  unless otherwise noted)

| 产品型号<br>(单向)<br>Part Number<br>(Uni) | 产品型号<br>(双向)<br>Part Number<br>(Bi) | 击穿电压 $V_{BR}@I_T$<br>Breakdown Voltage $V_{BR}@I_T$ |               |                          | 最大反向漏电流 $I_R@V_{WM}$<br>Maximum Reverse Leakage $I_R^{(3)}$<br>( $\mu\text{A}$ ) | 最大工作电压<br>$V_{RWM}$<br>Working Peak Reverse Voltage<br>$V_{RWM}(\text{V})$ | 最大反向浪涌电流 IPP<br>Maximum Reverse Surge Current IPP <sup>(2)</sup><br>(A) | 最大箝位电压<br>Maximum Clamping Voltage $V_C$<br>@ $I_{PP}$<br>(V) |
|--------------------------------------|-------------------------------------|-----------------------------------------------------|---------------|--------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------|
|                                      |                                     | 最小<br>Min(V)                                        | 最大<br>Max (V) | 测试电流<br>$I_T^{(1)}$ (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                                                         |



# SMBJ SERIES

■ 电性参数 ( $T_A = 25^\circ\text{C}$  除非另有规定)

## Electrical Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

| 产品型号<br>(单向)<br>Part Number<br>(Uni) | 产品型号<br>(双向)<br>Part Number<br>(Bi) | 击穿电压 $V_{BR}@I_T$<br>Breakdown Voltage $V_{BR}@I_T$ |               |                          | 最大反向漏电流 $I_R@V_{WM}$<br>Maximum<br>Reverse<br>Leakage $I_R^{(3)}$<br>( $\mu\text{A}$ ) | 最大工作电压<br>$V_{RWM}$<br>Working Peak<br>Reverse<br>Voltage<br>$V_{RWM}$ (V) | 最大反向浪涌<br>电流 IPP<br>Maximum<br>Reverse Surge<br>Current IPP <sup>(2)</sup><br>(A) | 最大箝位电压<br>Maximum<br>Clamping<br>Voltage $V_C$<br>@ $I_{PP}$<br>(V) |
|--------------------------------------|-------------------------------------|-----------------------------------------------------|---------------|--------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------|
|                                      |                                     | 最小<br>Min(V)                                        | 最大<br>Max (V) | 测试电流<br>$I_T^{(1)}$ (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                                                               |

### 备注: Notes:

(1) 脉冲测试:  $t_p \leq 50\text{ms}$  Pulse test:  $t_p \leq 50\text{ms}$

(2) 浪涌电流波形, 如图3, 功率降额曲线如图2.

Surge current waveform per Fig. 3 and derated per Fig.2.

(3) 对于双向型,  $V_{WM}$ 在10V及10V以下,  $I_R$ 值加倍

For bi-directional types having  $V_{WM}$  of 10 V and less, the  $I_R$  limit is doubled

(4) 对于双向SMBJ5.0CA,  $V_{BR}$ 最大值为7.25V

For the bi-directional SMBJ5.0CA, the maximum  $V_{BR}$  is 7.25 V

## ■特性曲线（典型） Characteristics(Typical)

图1: 最大脉冲功率曲线

FIG1: Peak Pulse Power Rating Curve

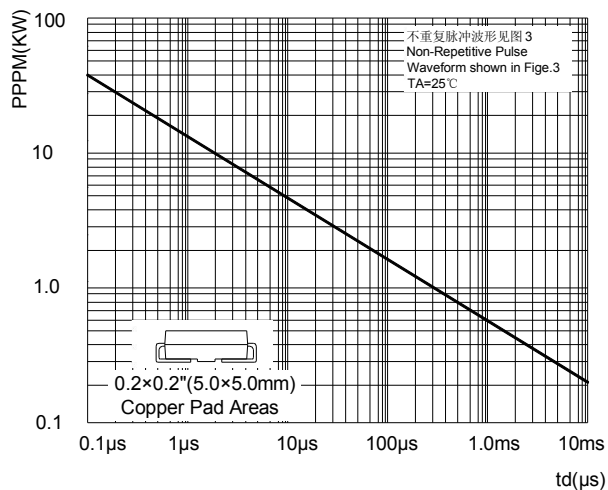


图3: 脉冲波形

FIG3: Pulse Waveform

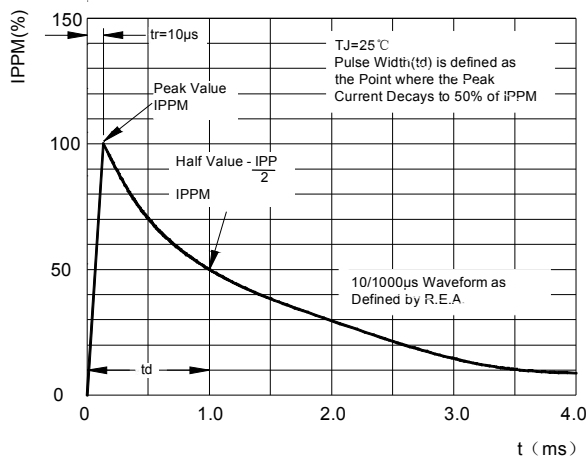


图5: 最大不重复浪涌电流

FIG5: Maximum Non-Repetitive Surge Current

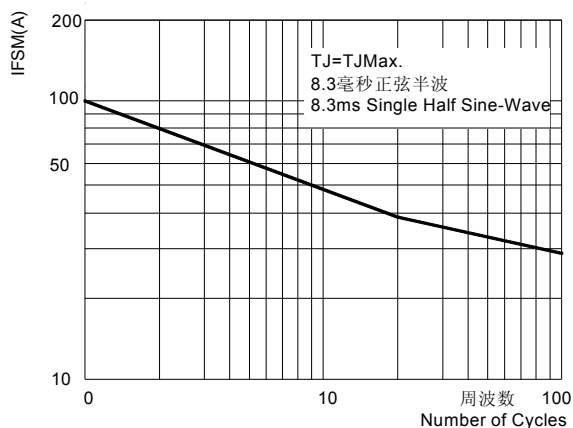


图2: 脉冲功率或电流与结温关系

FIG2: Pulse Power or Current vs. Initial Junction Temperature

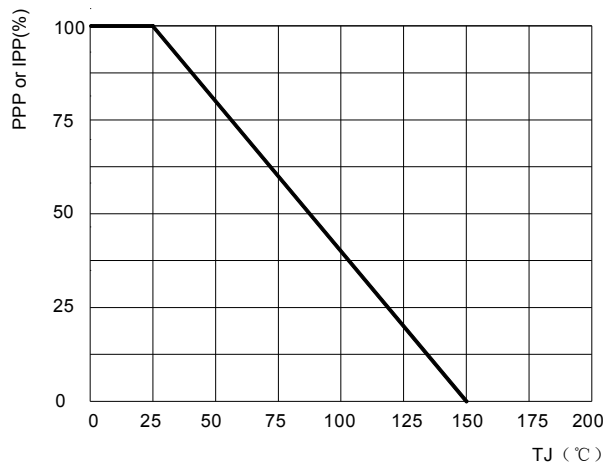


图4: 典型瞬态热阻

FIG4: Typical Transient Thermal Impedance

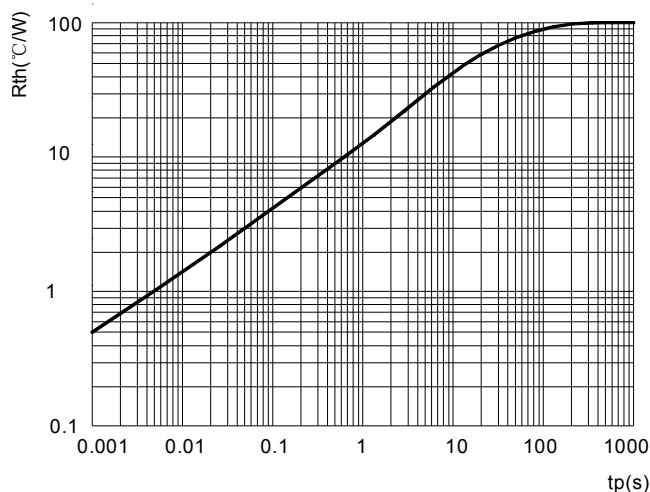


图6: 功率损耗曲线

FIG6: Steady State Power Dissipation

