

## SMBF Super Fast Recovery Diode 特快恢复二极管

### ■Features 特点

High current capability 高电流能力  
Low forward voltage drop 低正向压降  
Super Fast Recovery time 特快恢复时间  
Surface mount device 表面贴装器件  
Case 封装:SMBF



### ■Maximum Rating 最大额定值

( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如无特殊说明, 温度为  $25^{\circ}\text{C}$ )

| Characteristic 特性参数                      | Symbol 符号       | US2ABF                             | US2BBF | US2DBF | US2GBF | US2JBF | US2KBF | US2MBF | Unit 单位              |
|------------------------------------------|-----------------|------------------------------------|--------|--------|--------|--------|--------|--------|----------------------|
| Repetitive Peak Reverse Voltage 重复峰值反向电压 | $V_{RRM}$       | 50                                 | 100    | 200    | 400    | 600    | 800    | 1000   | V                    |
| DC Reverse Voltage 直流反向电压                | $V_R$           | 50                                 | 100    | 200    | 400    | 600    | 800    | 1000   | V                    |
| RMS Reverse Voltage 反向电压均方根值             | $V_{R(RMS)}$    | 35                                 | 70     | 140    | 280    | 420    | 560    | 700    | V                    |
| Forward Rectified Current 正向整流电流         | $I_F$           | 2                                  |        |        |        |        |        |        | A                    |
| Peak Surge Current 峰值浪涌电流                | $I_{FSM}$       | 60                                 |        |        |        |        |        |        | A                    |
| Thermal Resistance J-A 结到环境热阻            | $R_{\theta JA}$ | 40                                 |        |        |        |        |        |        | $^{\circ}\text{C/W}$ |
| Junction/Storage Temperature 结温/储藏温度     | $T_J, T_{stg}$  | $-50\text{to}+150^{\circ}\text{C}$ |        |        |        |        |        |        |                      |

### ■Electrical Characteristics 电特性

( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如无特殊说明, 温度为  $25^{\circ}\text{C}$ )

| Characteristic 特性参数          | Symbol 符号 | US2ABF-US2DBF                                                     | US2GBF | US2JBF-US2MBF | Unit 单位       | Condition 条件                                              |
|------------------------------|-----------|-------------------------------------------------------------------|--------|---------------|---------------|-----------------------------------------------------------|
| Forward Voltage 正向电压         | $V_F$     | 1.0                                                               | 1.3    | 1.7           | V             | $I_F=2\text{A}$                                           |
| Reverse Current 反向电流         | $I_R$     | 5( $T_A=25^{\circ}\text{C}$ )<br>150( $T_A=100^{\circ}\text{C}$ ) |        |               | $\mu\text{A}$ | $V_R=V_{RRM}$                                             |
| Reverse Recovery Time 反向恢复时间 | $T_{rr}$  | 50                                                                |        | 70            | nS            | $I_F=0.5\text{A}, I_R=1\text{A}$<br>$I_{rr}=0.25\text{A}$ |
| Junction Capacitance 结电容     | $C_J$     | 30                                                                |        |               | pF            | $V_R=4\text{V}, f=1\text{MHz}$                            |

## ■ Typical Characteristic Curve 典型特性曲线

FIG.1-TYPICAL FORWARD CHARACTERISTICS

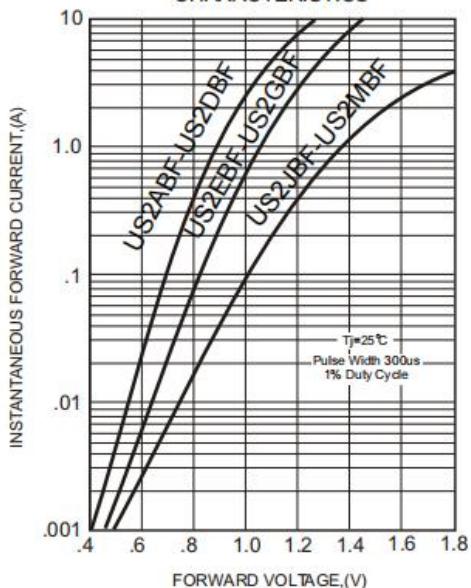


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

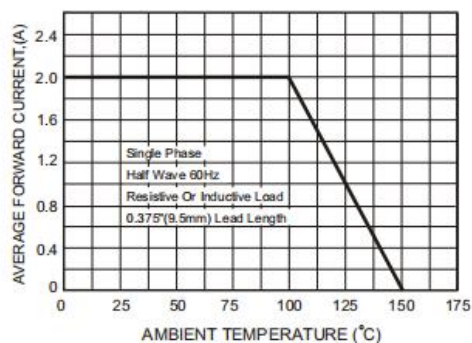
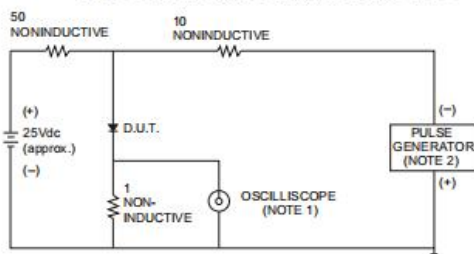


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time  $\leq 7$  ns max., Input Impedance  $\approx 1$  megohm, 22pF.  
2. Rise Time  $\leq 10$  ns max., Source Impedance  $\approx 50$  ohms.

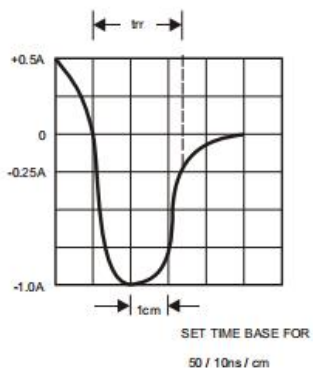


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

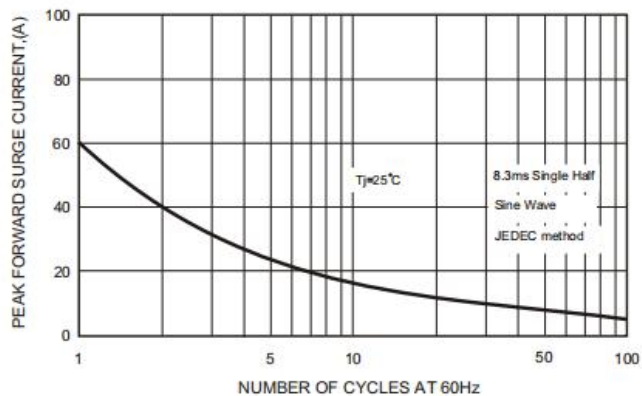
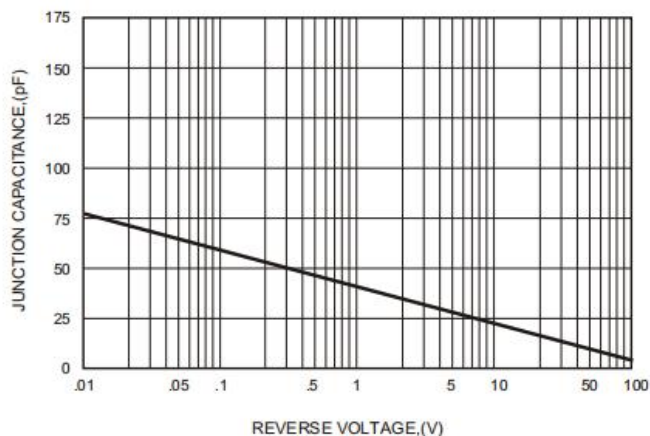


FIG.5-TYPICAL JUNCTION CAPACITANCE



■Dimension 外形封装尺寸

