

## Ultra-Fast Recovery Rectifier Diodes

### ■特征 Features

- $I_o$  20.0A
- $V_{RRM}$  100V~600V
- 玻璃钝化芯片 Glass passivated chip
- 耐正向浪涌电流能力高  
High surge forward current capability

### ■用途 Applications

- 快速整流用  
High speed switching

### ■极限值（绝对最大额定值）

#### Limiting Values（Absolute Maximum Rating）

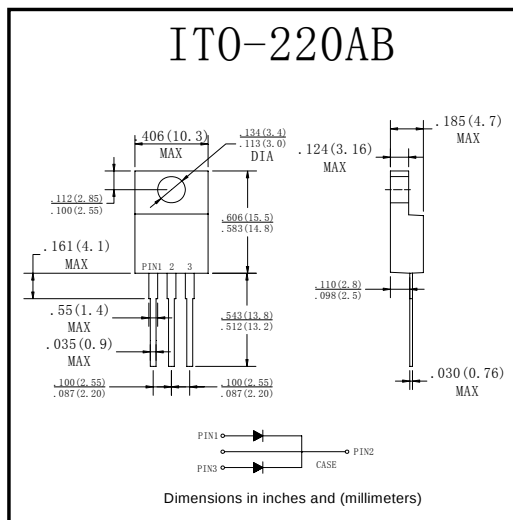
| 参数名称<br>Item                                        | 符号<br>Symbol | 单位<br>Unit  | 条件<br>Conditions                                                                                               | MUR- FCT   |      |      |      |      |
|-----------------------------------------------------|--------------|-------------|----------------------------------------------------------------------------------------------------------------|------------|------|------|------|------|
|                                                     |              |             |                                                                                                                | 2010       | 2015 | 2020 | 2040 | 2060 |
| 反向重复峰值电压<br>Repetitive Peak Reverse Voltage         | $V_{RRM}$    | V           |                                                                                                                | 100        | 150  | 200  | 400  | 600  |
| 平均整流输出电流<br>Average Rectified Output Current        | $I_o$        | A           | 60Hz 正弦波, 电阻负载, $T_a=25^{\circ}C$<br>60Hz sine wave, R- load, $T_a=25^{\circ}C$                                | 20         |      |      |      |      |
| 正向（不重复）浪涌电流<br>Surge(Non-repetitive)Forward Current | $I_{FSM}$    | A           | 60Hz正弦波, 一个周期, $T_a=25^{\circ}C$<br>60Hz sine wave, 1 cycle, $T_a=25^{\circ}C$                                 | 125        |      |      |      |      |
| 正向浪涌电流的平方对电流浪涌持续时间的积分值<br>Current Squared Time      | $I^2t$       | $A^2s$      | $1ms \leq t < 8.3ms$ $T_j=25^{\circ}C$ , 单个二极管<br>$1ms \leq t < 8.3ms$ $T_j=25^{\circ}C$ , Rating of per diode | 65         |      |      |      |      |
| 贮存温度<br>Storage Temperature                         | $T_{stg}$    | $^{\circ}C$ |                                                                                                                | -55 ~ +150 |      |      |      |      |
| 结温<br>Junction Temperature                          | $T_j$        | $^{\circ}C$ |                                                                                                                | -55 ~ +175 |      |      |      |      |

### ■电特性（ $T_a=25^{\circ}C$ 除非另有规定）

#### Electrical Characteristics（ $T_a=25^{\circ}C$ Unless otherwise specified）

| 参数名称<br>Item                    | 符号<br>Symbol         | 单位<br>Unit | 测试条件<br>Test Condition                                             |                     | MUR- FCT |      |      |      |      |
|---------------------------------|----------------------|------------|--------------------------------------------------------------------|---------------------|----------|------|------|------|------|
|                                 |                      |            |                                                                    |                     | 2010     | 2015 | 2020 | 2040 | 2060 |
| 正向峰值电压<br>Peak Forward Voltage  | V <sub>FM</sub>      | V          | I <sub>FM</sub> =10.0A                                             |                     | 0.95     |      |      | 1.25 | 1.7  |
| 反向峰值电流<br>Peak Reverse Current  | I <sub>RRM1</sub>    | μ A        | V <sub>RM</sub> =V <sub>RRM</sub>                                  | T <sub>a</sub> =25℃ | 10       |      |      |      |      |
|                                 | T <sub>a</sub> =125℃ |            |                                                                    | 500                 |          |      |      |      |      |
| 反向恢复时间<br>Reverse Recovery Time | T <sub>rr</sub>      | ns         | I <sub>F</sub> =0.5A I <sub>RM</sub> =1A<br>I <sub>RR</sub> =0.25A |                     | 35       |      |      | 50   |      |
| 热阻<br>Thermal Resistance        | R <sub>θ J-C</sub>   | ℃/W        | 结和壳之间<br>Between junction and case                                 |                     | 2.0      |      |      |      |      |

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



## ■特性曲线（典型） Characteristics(Typical)

图1: 正向电流降额曲线

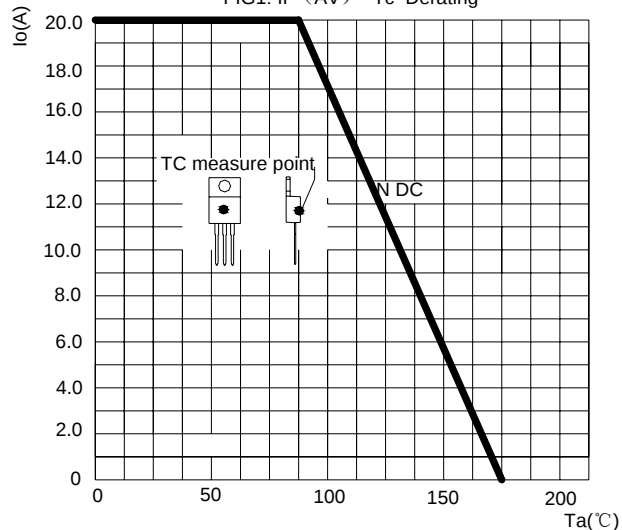
FIG1:  $I_F$  (AV) -- $T_c$  Derating

图2: 耐正向浪涌电流曲线

FIG2: Surge Forward Current Capability

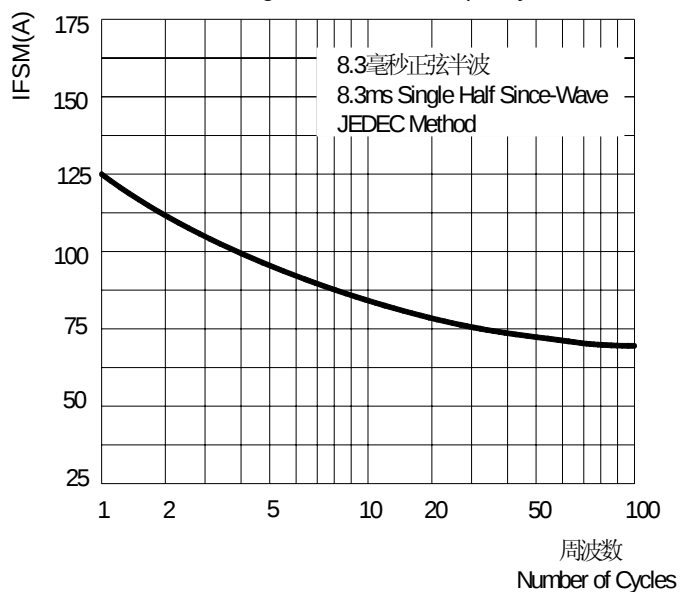


图3: 正向电压曲线

FIG3: Instantaneous Forward Voltage

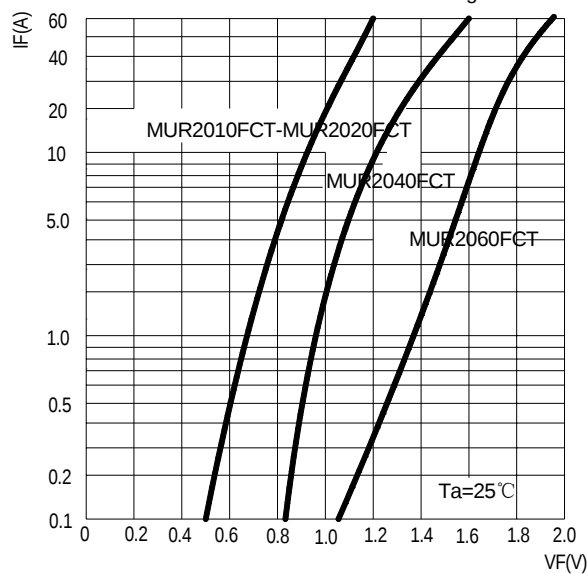


图4: 反向电流曲线

FIG4: Typical Reverse Characteristics

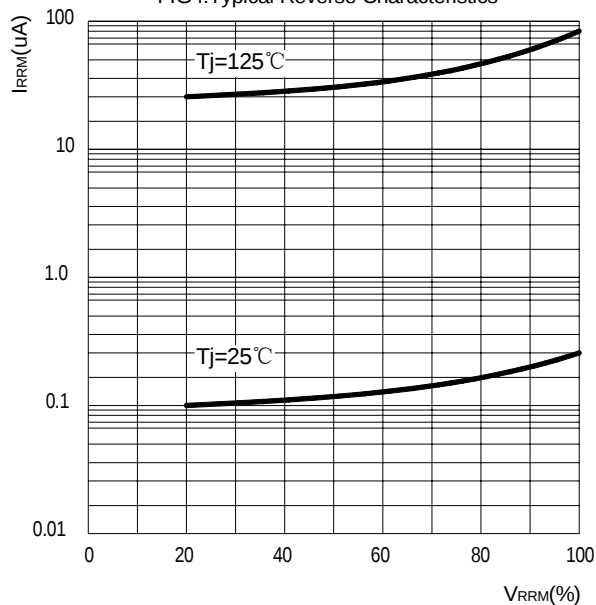


图5: 反向恢复时间试验电路及测试波形示意图

FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

