



DFR15A20-DFR15A60

塑封超快速整流二极管

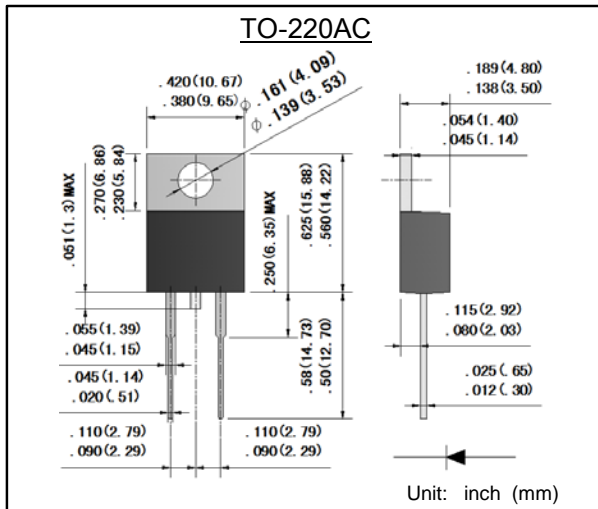
Plastic Ultra-Fast Recovery Rectifiers

反向电压 200 ~ 600 V

Reverse Voltage 200 ~ 600 V

正向电流 15 A

Forward Current 15 A



特征 Features

- 反向漏电流低 Low reverse leakage
- 正向浪涌承受能力强 High forward surge capability
- 高信赖性 High reliability
- 引线 and 管体皆符合RoHS标准
Lead and body according with RoHS standard
- 型号后缀“-F”标记无卤素产品
Green compound with suffix "-F" on Marking

机械数据 Mechanical Data

- 封装外形: TO-220AC 塑封 Case: TO-220AC Molded plastic
- 环氧树脂: UL易燃等级: 94V-0
Epoxy: UL 94V-0 rate flame retardant
- 引脚: 镀锡, 无铅 Lead: Pure tin plated, lead free
- 安装位置: 任意 Mounting Position: Any
- 安装扭矩: 推荐值 0.3牛*米 Mounting torque: Recommend 0.3 N*m

极限值和温度特性 TA = 25°C 除非另有规定。

Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

| 参数 Parameter | 符号 Symbols | DFR 15A20 | DFR 15A30 | DFR 15A40 | DFR 15A60 | 单位 Unit |
|--|-----------------|--------------|--------------|--------------|--------------|------------|
| 最大可重复峰值反向电压 Maximum repetitive peak reverse voltage | V_{RRM} | 200 | 300 | 400 | 600 | V |
| 最大均方根电压 Maximum RMS voltage | V_{RMS} | 140 | 210 | 280 | 420 | V |
| 最大直流阻断电压 Maximum DC blocking voltage | V_{DC} | 200 | 300 | 400 | 600 | V |
| 最大正向平均整流电流 Maximum average forward rectified current | $I_{F(AV)}$ | 15.0 | | | | A |
| 正向不重复浪涌电流 8.3 ms 单一正弦半波 Non-repetitive peak forward surge current 8.3 ms single half sine-wave | I_{FSM} | 150 | | | | A |
| 典型热阻 Typical thermal resistance (Note 1) | $R_{\theta JC}$ | 2.5 | | | | °C/W |
| 工作结温 Junction temperature | T_j | 150 | | | | °C |
| 存储温度 Storage temperature range | T_{STG} | -55 --- +150 | | | | °C |

备注 Note:

1) 安装在PCB板上, 从PN结到管体的热阻。

1) Thermal resistance from junction to case, PCB mounted.

电特性 TA = 25°C 除非另有规定。

Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

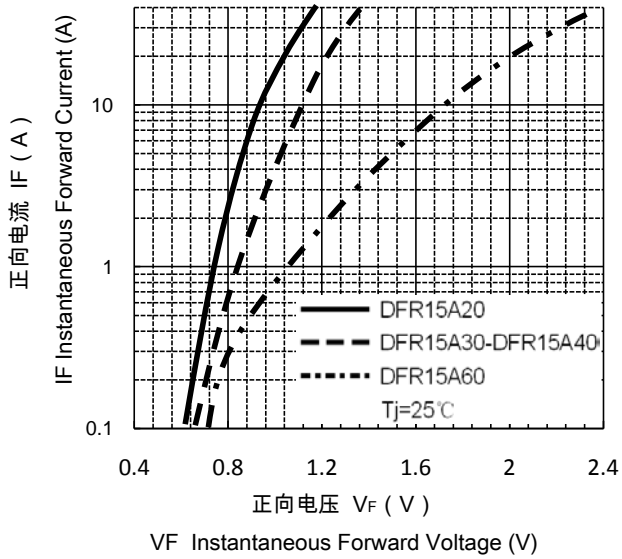
| 参数 Parameter | 符号 Symbols | DFR 15A20 | DFR 15A30 | DFR 15A40 | DFR 15A60 | 单位 Unit |
|--|---------------|--------------|--------------|--------------|--------------|------------|
| 最大正向电压 @IF=15.0A Maximum forward voltage | V_F | 0.98 | 1.30 | | 1.80 | V |
| 最大反向电流 @V _{DC} Maximum reverse current | I_R | 30 | | | | μA |
| 最大反向恢复时间 IF=0.5A, IR=1.0A, IRR=0.25A MAX. reverse recovery time | T_{rr} | 40 | | | | ns |



特性曲线 Characteristic Curves

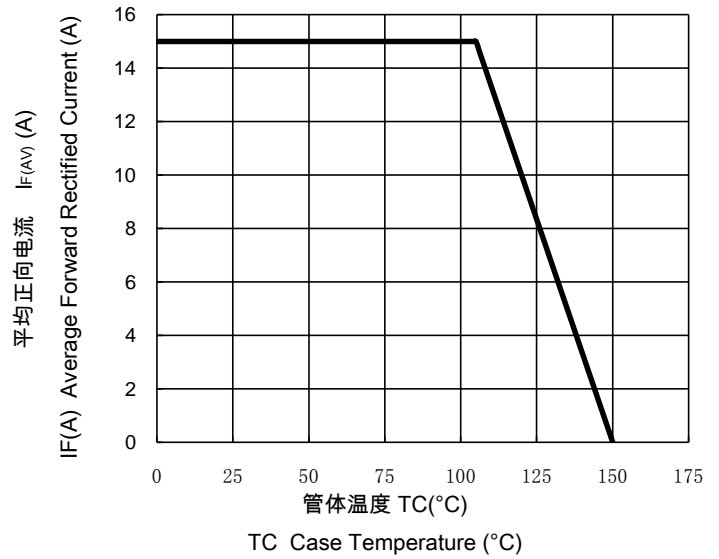
正向特性曲线 (典型值)

TYPICAL FORWARD CHARACTERISTIC



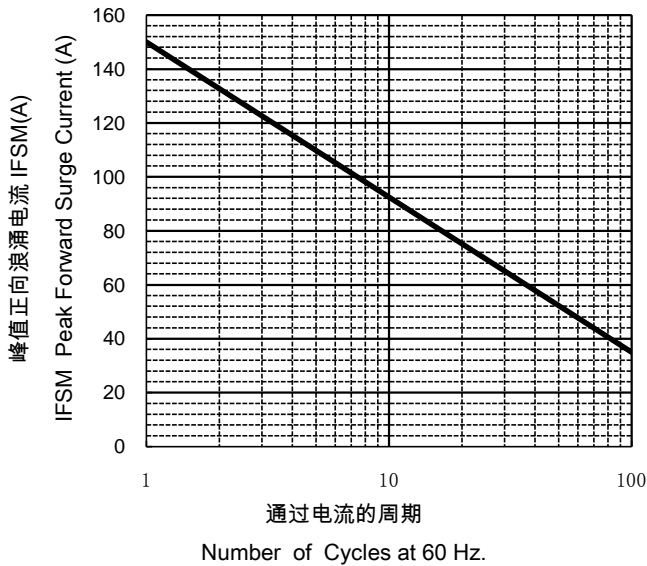
正向电流降额曲线

FORWARD CURRENT DERATING CURVE



浪涌特性曲线 (最大值)

MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



反向特性曲线

Typical Reverse Characteristics

