



ES2AA THRU ES2JA

超快恢复整流二极管 Super Fast Recovery Rectifier Diode

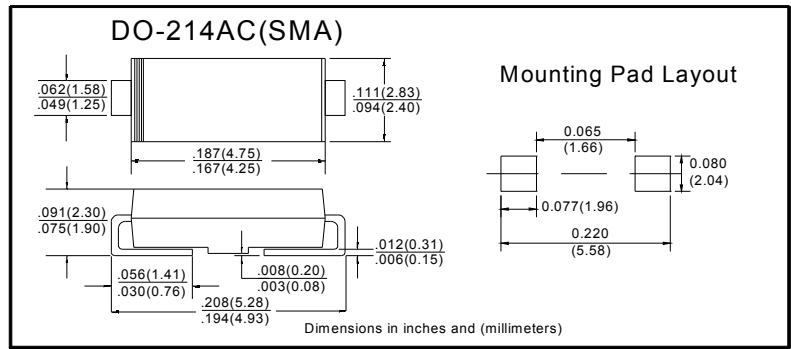
■特征 Features

- I_o 2.0A
- V_{RRM} 50V-600V
- 耐正向浪涌电流能力高
High surge current capability
- 封装: 模压塑料
Cases: Molded plastic

■用途 Applications

- 整流用 Rectifier

■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 Item | 符号 Symbol | 单位 Unit | 测试条件 Test Conditions | ES2 | | | | | | | |
|---|--------------|------------------|--|------------|-----|-----|-----|-----|-----|-----|-----|
| | | | | AA | BA | CA | DA | FA | GA | HA | JA |
| 反向重复峰值电压 Repetitive Peak Reverse Voltage | V_{RRM} | V | | 50 | 100 | 150 | 200 | 300 | 400 | 500 | 600 |
| 正向平均电流 Average Forward Current | $I_{F(AV)}$ | A | 正弦半波 60Hz, 电阻负载, $T_L=110^\circ\text{C}$ 60HZ Half-sine wave, Resistance load, $T_L=110^\circ\text{C}$ | 2.0 | | | | | | | |
| 正向(不重复)浪涌电流 Surge(Non-repetitive)Forward Current | I_{FSM} | A | 正弦半波 60Hz, 一个周期, $T_a=25^\circ\text{C}$ 60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$ | 50 | | | | | | | |
| 结温 Junction Temperature | T_J | $^\circ\text{C}$ | | -55~+150 | | | | | | | |
| 储存温度 Storage Temperature | T_{STG} | $^\circ\text{C}$ | | -55 ~ +150 | | | | | | | |

■电特性 (Ta=25°C 除非另有规定)

Electrical Characteristics (Ta=25°C Unless otherwise specified)

| 参数名称 Item | 符号 Symbol | 单位 Unit | 测试条件 Test Condition | ES2 | | | | | | | | |
|---|------------------|---------------------------|---|-------------------------|------------------|-----|----|-----|----|-----|----|--|
| | | | | AA | BA | CA | DA | FA | GA | HA | JA | |
| 正向峰值电压 Peak Forward Voltage | V_F | V | $I_F=2.0\text{A}$ | 0.95 | | | | 1.3 | | 1.7 | | |
| 最大反向恢复时间 Maximum reverse recovery time | t_{rr} | ns | $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ | 35 | | | | | | | | |
| 反向漏电流 Peak Reverse Current | I_{RRM1} | μA | $V_{RM}=V_{RRM}$ | $T_a=25^\circ\text{C}$ | | 5.0 | | | | | | |
| | I_{RRM2} | | | $T_a=100^\circ\text{C}$ | | 350 | | | | | | |
| 热阻(典型) Thermal Resistance(Typical) | $R_{\theta J-A}$ | $^\circ\text{C}/\text{W}$ | 结和环境之间 Between junction and ambient | | 75 ¹⁾ | | | | | | | |
| | $R_{\theta J-L}$ | | 结和终端之间 Between junction and terminal | | 20 ¹⁾ | | | | | | | |

备注: Notes:

¹⁾ 热阻从结到环境及从结到引线, 在电路板的0.27" x 0.27" (7.0毫米 x 7.0毫米)铜垫片区

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.27" x 0.27" (7.0 mm x 7.0 mm) copper pad areas

■ 特性曲线 (典型) Characteristics(Typical)

图1: 正向电流降额曲线
FIG.1: FORWARD CURRENT DERATING CURVE

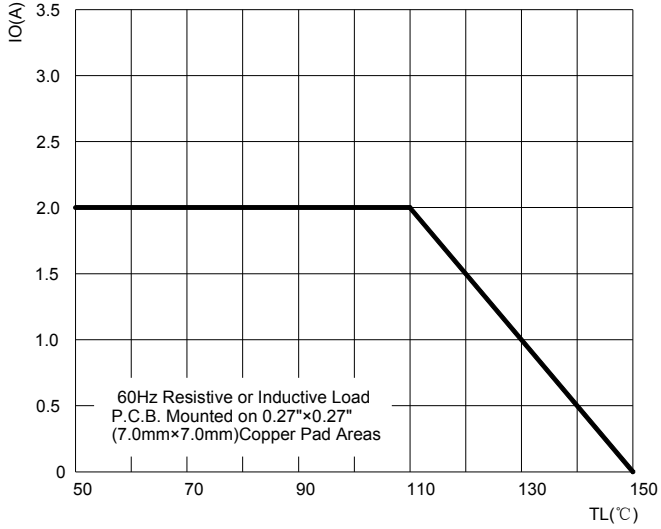


图2: 最大正向浪涌冲击耐受力
FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

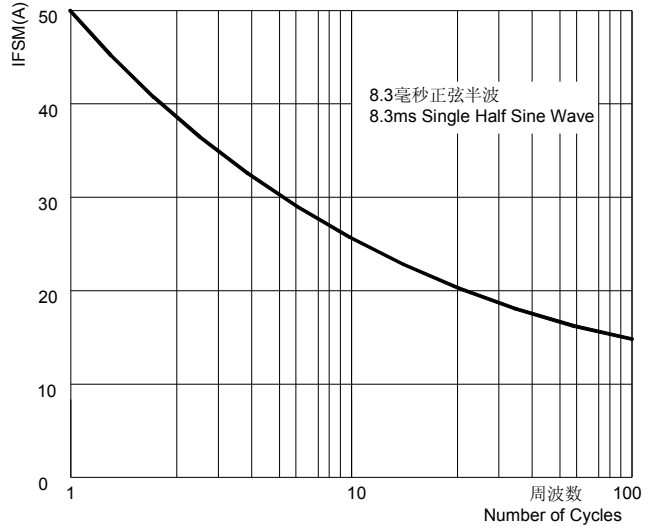


图3: 典型正向特性曲线
FIG.3: TYPICAL FORWARD CHARACTERISTICS

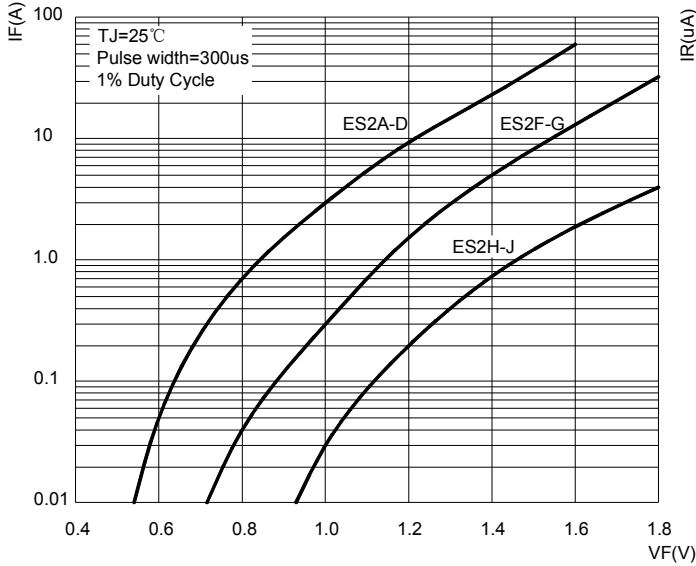


图4: 典型反向特性曲线
FIG.4: TYPICAL REVERSE CHARACTERISTICS

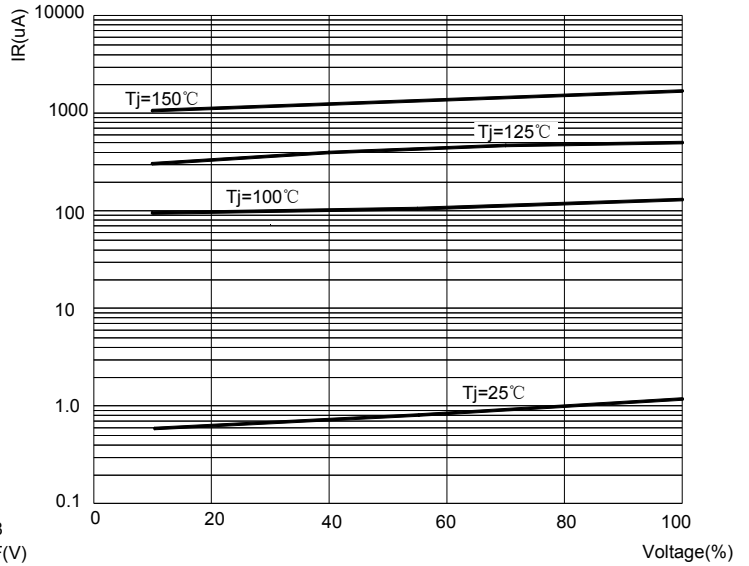


图5: 反向恢复时间试验电路及测试波形示意图
FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

