

塑封快恢复整流二极管

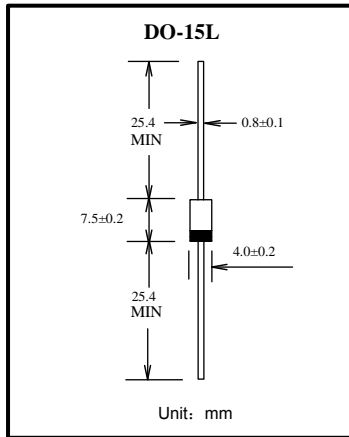
反向电压 50 ---1000 V

正向电流 2.5 A

Plastic Fast Recover Rectifier

Reverse Voltage 50 to 1000V

Forward Current 2.5A



特征 Features

- 反向漏电流低 Low reverse leakage
- 正向浪涌承受能力较强 High forward surge capability
- 高温焊接保证 High temperature soldering guaranteed:
260°C/10 秒, 0.375" (9.5mm)引线长度。
260°C/10 seconds, 0.375" (9.5mm) lead length,
- 引线可承受5 磅 (2.3kg) 拉力。 5 lbs. (2.3kg) tension
- 引线 and 管体皆符合RoHS标准。
Lead and body according with RoHS standard

机械数据 Mechanical Data

- 端子: 镀锡轴向引线 Terminals: Plated axial leads
- 极性: 色环端为负极 Polarity: Color band denotes cathode end
- 安装位置: 任意 Mounting Position: Any

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.

| | 符号 Symbols | FR251 | FR252 | FR253 | FR254 | FR255 | FR256 | FR257 | 单位 Unit |
|--|-----------------|--------------|-------|-------|-------|-------|-------|-------|------------|
| 最大可重复峰值反向电压 Maximum repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| 最大均方根电压 Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| 最大直流阻断电压 Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| 最大正向平均整流电流 Maximum average forward rectified current | $I_{F(AV)}$ | 2.5 | | | | | | | A |
| 峰值正向浪涌电流 8.3ms 单一正弦半波 Peak forward surge current 8.3 ms single half sine-wave | I_{FSM} | 125 | | | | | | | A |
| 典型热阻 Typical thermal resistance | $R_{\theta JA}$ | 15 | | | | | | | °C/W |
| 工作结温和存储温度 Operating junction and storage temperature range | T_j, T_{STG} | -55 --- +150 | | | | | | | °C |

电特性 TA = 25°C 除非另有规定。

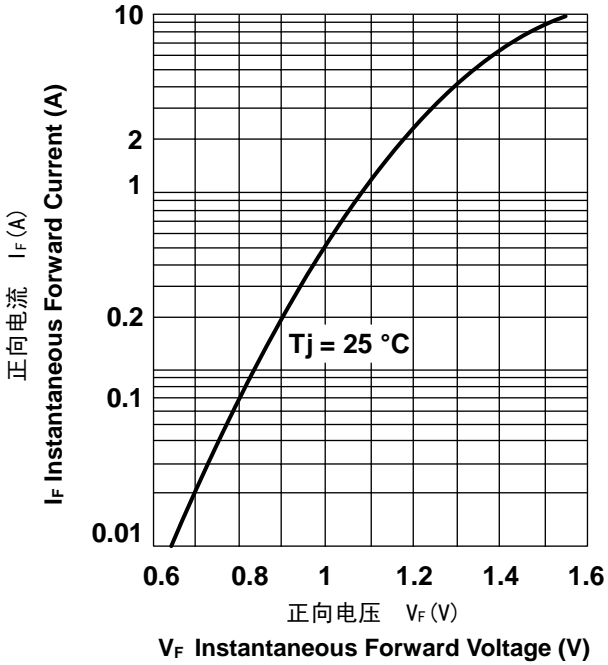
Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

| | 符号 Symbols | FR251 | FR252 | FR253 | FR254 | FR255 | FR256 | FR257 | 单位 Unit |
|--|---------------|------------|-------|-------|-------|-------|-------|-------|------------|
| 最大正向电压 Maximum forward voltage $I_F = 2.5A$ | V_F | 1.3 | | | | | | | V |
| 最大反向电流 Maximum reverse current $T_A = 25^\circ C$ $T_A = 100^\circ C$ | I_R | 5.0 200 | | | | | | | μA |
| 最大反向恢复时间 MAX. Reverse Recovery Time $I_F = 0.5A$ $I_R = 1.0A$ $I_{RR} = 0.25A$ | t_{rr} | 150 | | | | | 300 | | nS |
| 典型结电容 Type junction capacitance $V_R = 4.0V, f = 1MHz$ | C_j | 45 | | | | | | | pF |

特性曲线 Characteristic Curves

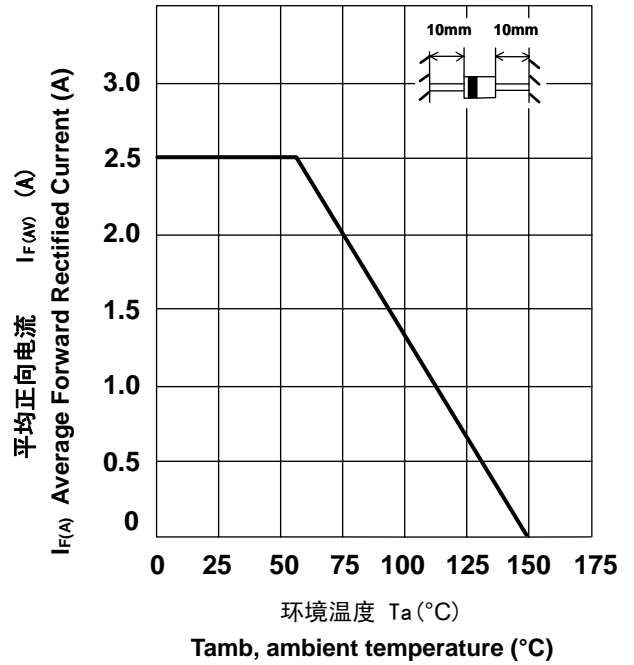
正向特性曲线 (典型值)

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

