

Power Surface Mount Schottky Rectifier (200V, 120Amp)

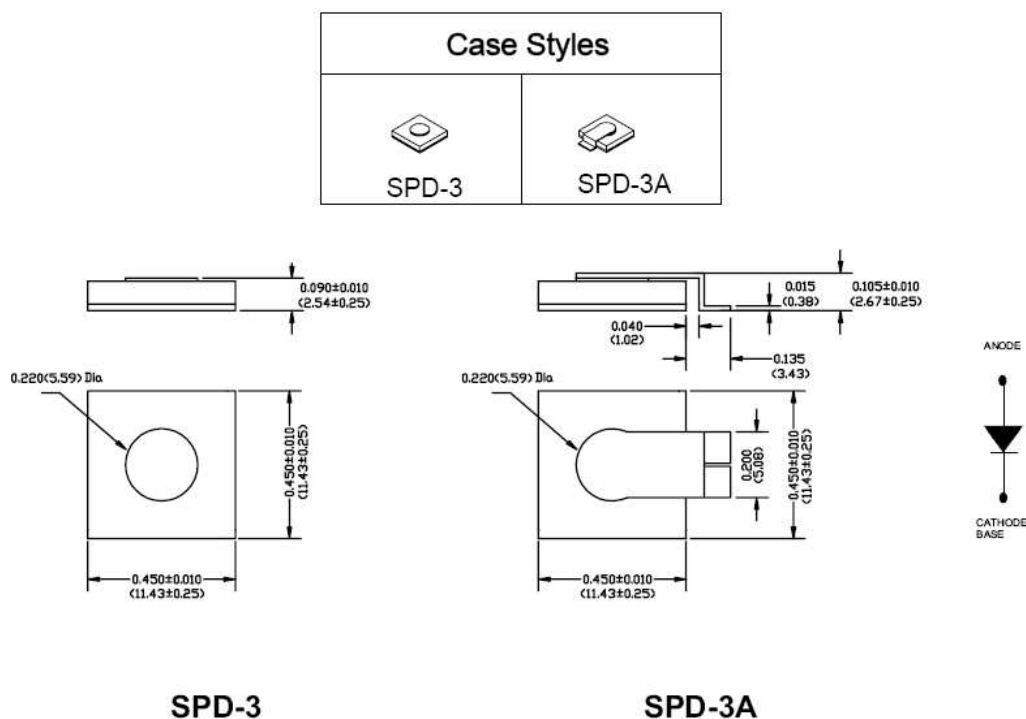
Applications:

- Switching power supply
- Converters
- Reverse battery protection
- Redundant power subsystems
- Many other high current AC/DC power supplies

Features:

- 175 °C T_J operation
- Low forward voltage drop
- Low reverse leakage current
- High surge capacities
- High frequency operation
- Guaranteed reverse avalanche capability
- Low profile surface mount package
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Mechanical Dimensions: In Inches / mm



Suffix “R” Denotes Reversed Polarity

Maximum Ratings:

| Characteristics | Symbol | Condition | Max. | Units |
|---|-------------|---------------------------------------|------|-------|
| Peak Inverse Voltage | V_{RWM} | - | 200 | V |
| Average Forward Current | $I_{F(AV)}$ | 50% duty cycle, rectangular wave form | 120 | A |
| Peak One Cycle Non-Repetitive Surge Current (per leg) | I_{FSM} | 8.3 ms, half Sine pulse | 1650 | A |

Electrical Characteristics:

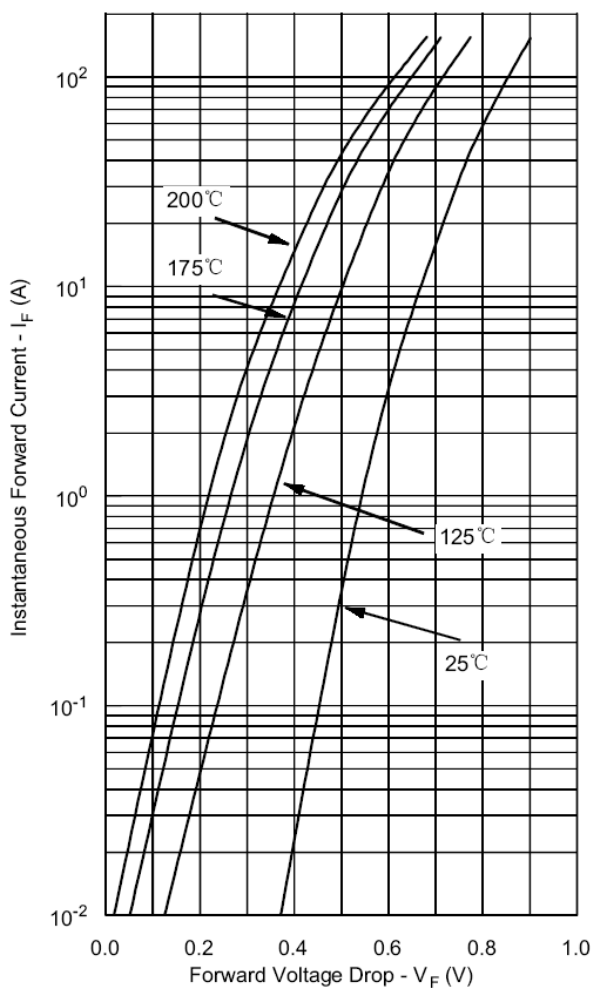
| Characteristics | Symbol | Condition | Max. | Units |
|--------------------------------|----------|--|------|-------|
| Forward Voltage Drop* | V_{F1} | @ 120A, Pulse, $T_J = 25\text{ }^\circ\text{C}$ | 0.95 | V |
| | V_{F2} | @ 120A, Pulse, $T_J = 125\text{ }^\circ\text{C}$ | 0.79 | V |
| Reverse Current (per leg) * | I_{R1} | @ $V_R = \text{rated } V_R$, Pulse, $T_J = 25\text{ }^\circ\text{C}$ | 2.1 | mA |
| | I_{R2} | @ $V_R = \text{rated } V_R$, Pulse, $T_J = 125\text{ }^\circ\text{C}$ | 48 | mA |
| Junction Capacitance (per leg) | C_J | @ $V_R = 5\text{V}$, $T_C = 25\text{ }^\circ\text{C}$ $f_{SIG} = 1\text{MHz}$, $V_{SIG} = 50\text{mV(p-p)}$ | 1800 | pF |

* Pulse Width < 300 μ s, Duty Cycle <2%

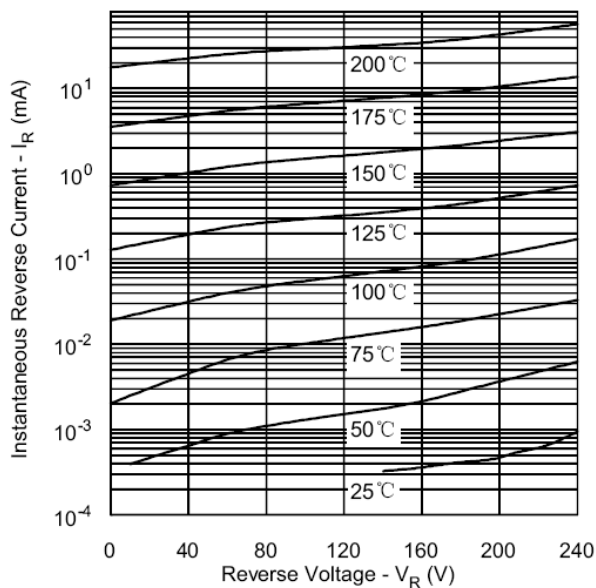
Thermal-Mechanical Specifications:

| Characteristics | Symbol | Condition | Specification | Units |
|---|-----------------|--------------|---------------|--------------------|
| Max. Junction Temperature | T_J | - | -55 to +175 | $^\circ\text{C}$ |
| Max. Storage Temperature | T_{stg} | - | -55 to +175 | $^\circ\text{C}$ |
| Maximum Thermal Resistance Junction to Case | $R_{\theta JC}$ | DC operation | 0.20 | $^\circ\text{C/W}$ |
| Case Style | SPD-3/A | | | |

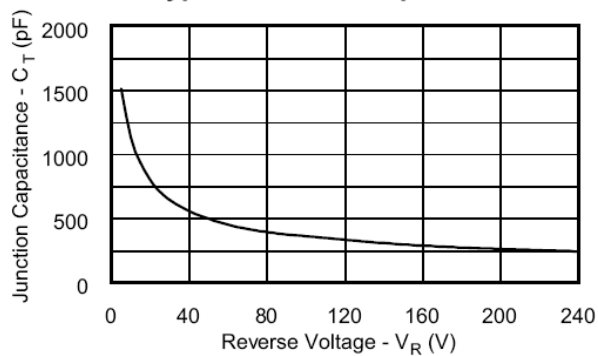
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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