

Technical Data
Data Sheet 3132, Rev. -

Power Surface Mount Schottky Rectifier (60V,30Amp)

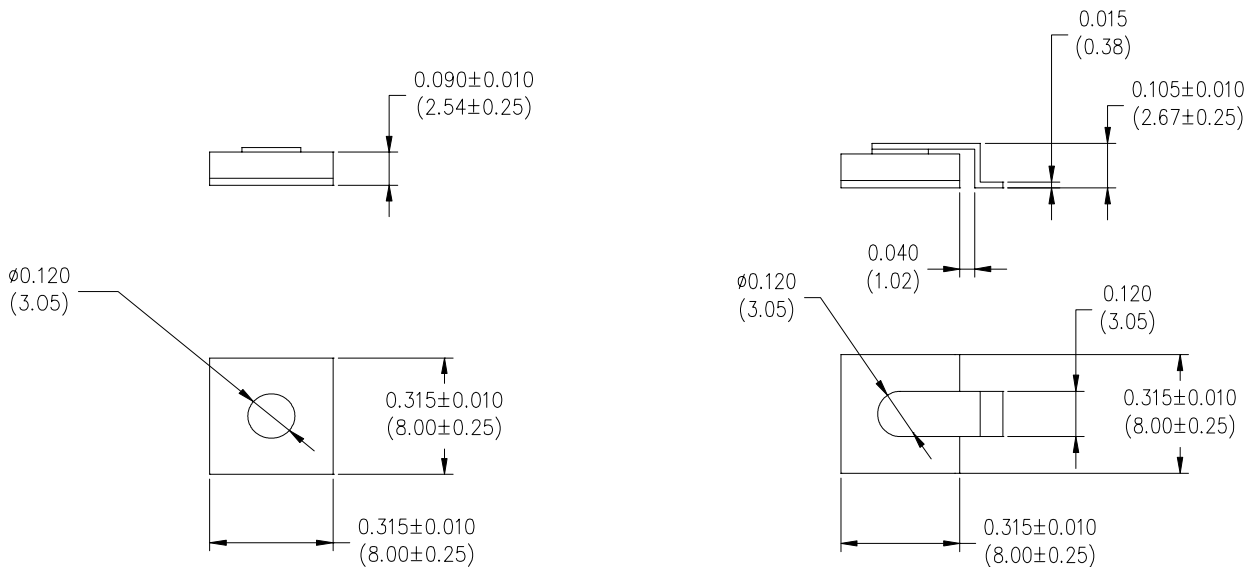
Applications:

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

Features:

- 150°C T_J operation
- Low reverse leakage current
- High surge capacities
- Low forward voltage drop
- High frequency operation
- Low profile surface mount package

Mechanical Dimensions: In Inches / mm



SPD-1

SPD-1A

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Maximum Ratings:

| Characteristics | Symbol | Condition | Max. | Units |
|--|-------------|---|------|-------|
| Peak Inverse Voltage | V_{RWM} | - | 60 | V |
| Max. Average Forward Current | $I_{F(AV)}$ | 50% duty cycle, rectangular wave form | 30 | A |
| Max. Peak One Cycle Non-Repetitive Surge Current | I_{FSM} | 8.3 ms, Sine pulse | 570 | A |
| Non-Repetitive Avalanche Energy | E_{AS} | $T_J = 25\text{ }^\circ\text{C}$, $I_{AS} = 2.9\text{ A}$ $L = 6.5\text{ mH}$ | 27.3 | mJ |
| Repetitive Avalanche Current | I_{AR} | I_{AS} decay linearly to 0 in $1\text{ }\mu\text{s}$ f limited by T_J max $V_A = 1.5V_R$ | 2.9 | A |

Electrical Characteristics:

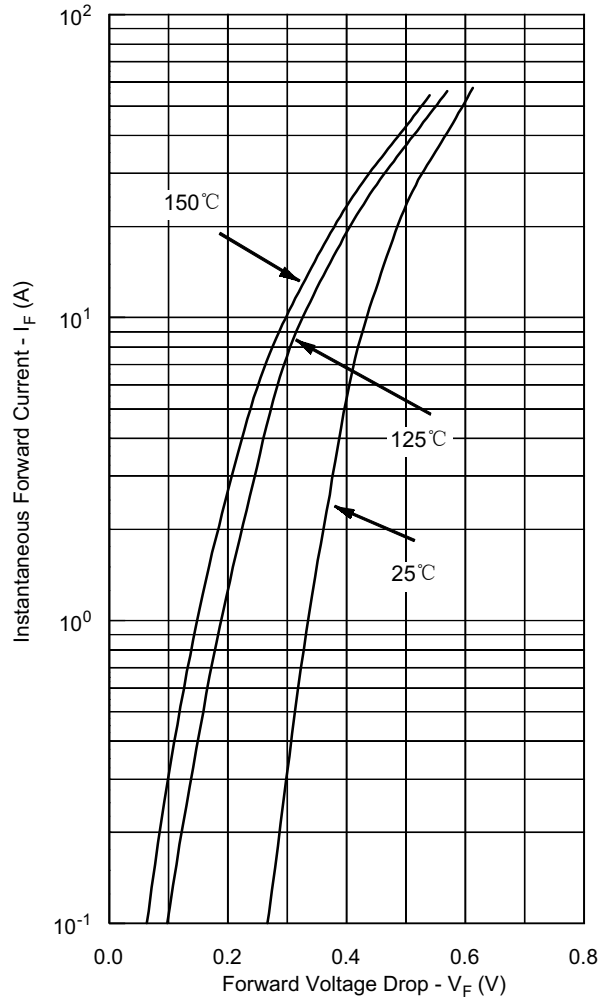
| Characteristics | Symbol | Condition | Max. | Units |
|---------------------------|----------|---|------|-------|
| Max. Forward Voltage Drop | V_{F1} | @ 30 A, Pulse, $T_J = 25\text{ }^\circ\text{C}$ | 0.56 | V |
| | V_{F2} | @ 30 A, Pulse, $T_J = 125\text{ }^\circ\text{C}$ | 0.51 | V |
| Max. Reverse Current | I_{R1} | @ $V_R = 60\text{ V}$, Pulse, $T_J = 25\text{ }^\circ\text{C}$ | 4.0 | mA |
| | I_{R2} | @ $V_R = 60\text{ V}$, Pulse, $T_J = 125\text{ }^\circ\text{C}$ | 280 | mA |
| Max. Junction Capacitance | C_T | @ $V_R = 5\text{ V}$, $T_C = 25\text{ }^\circ\text{C}$ $f_{SIG} = 1\text{ MHz}$, $V_{SIG} = 50\text{ mV (p-p)}$ | 1600 | pF |

Thermal-Mechanical Specifications:

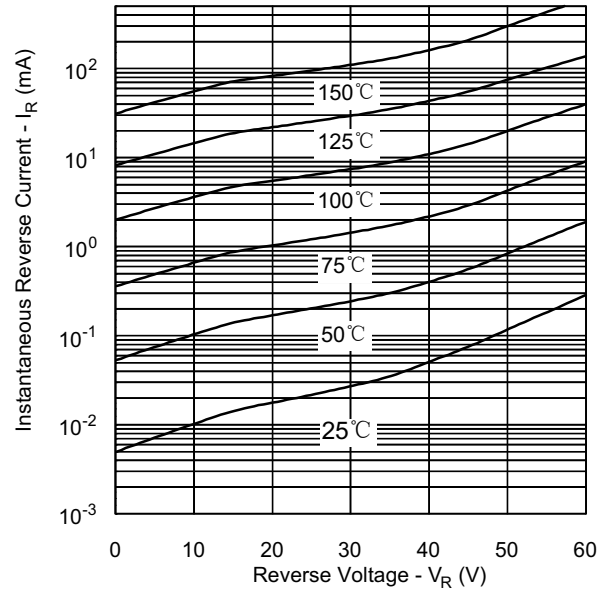
| Characteristics | Symbol | Condition | Specification | Units |
|--|-----------------|--------------|---------------|--------------------|
| Max. Junction Temperature | T_J | - | -55 to +150 | $^\circ\text{C}$ |
| Max. Storage Temperature | T_{stg} | - | -55 to +150 | $^\circ\text{C}$ |
| Max. Thermal Resistance Junction to Case | $R_{\theta JC}$ | DC operation | 0.50 | $^\circ\text{C/W}$ |
| Case Style | SPD-1/A | | | |

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Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance

