

Power Surface Mount Schottky Rectifier (60V, 120Amp)

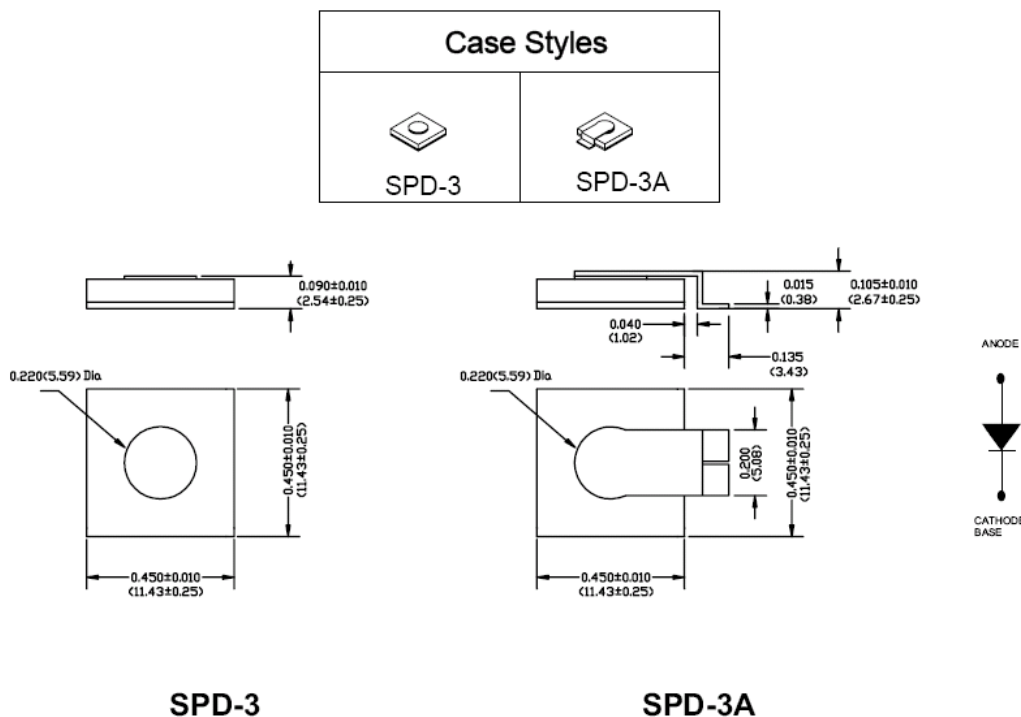
Applications:

- 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}	-	60	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}	@ 5A, Pulse, $T_J = 25\text{ }^\circ\text{C}$	0.50	V
		@ 10A, Pulse, $T_J = 25\text{ }^\circ\text{C}$	0.54	
	V_{F2}	@ 5A, Pulse, $T_J = 125\text{ }^\circ\text{C}$	0.36	V
		@ 10A, Pulse, $T_J = 125\text{ }^\circ\text{C}$	0.40	
Reverse Current (per leg) *	I_{R1}	@ $V_R = 15\text{V}$,Pulse, $T_J = 25\text{ }^\circ\text{C}$	20	uA
		@ $V_R = 60\text{V}$,Pulse, $T_J = 25\text{ }^\circ\text{C}$	100	
	I_{R2}	@ $V_R = 15\text{V}$,Pulse, $T_J = 125\text{ }^\circ\text{C}$	10	mA
		@ $V_R = 60\text{V}$,Pulse, $T_J = 125\text{ }^\circ\text{C}$	48	
Junction Capacitance (per leg)	C_J	@ $V_R = 5\text{V}$, $T_C = 25\text{ }^\circ\text{C}$ $f_{SIG} = 1\text{MHz}$, $V_{SIG}=50\text{mV(p-p)}$	4800	pF

* Pulse Width < 300μs, Duty Cycle <2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-55 to +175	$^\circ\text{C}$
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			

Figure 1
Typical Forward Characteristics

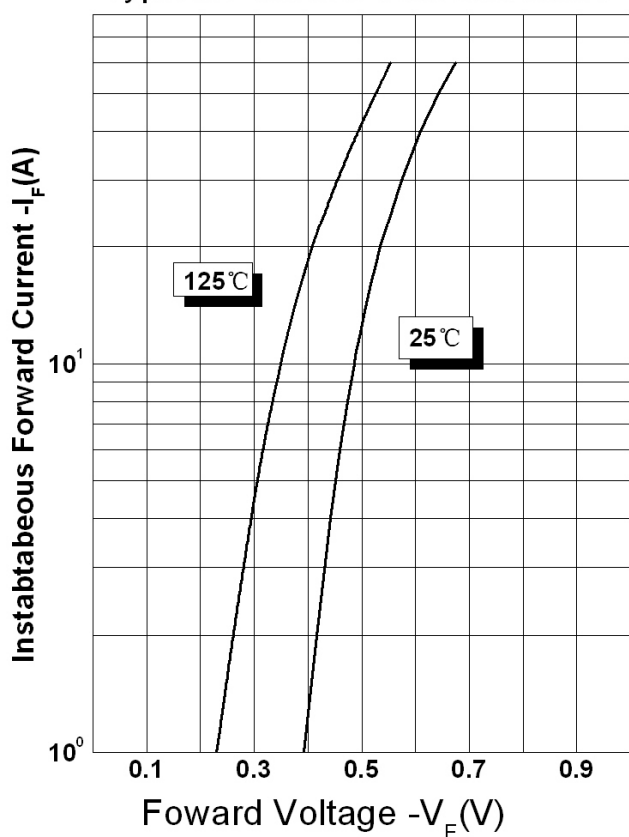


Figure 2
Typical Reverse Characteristics

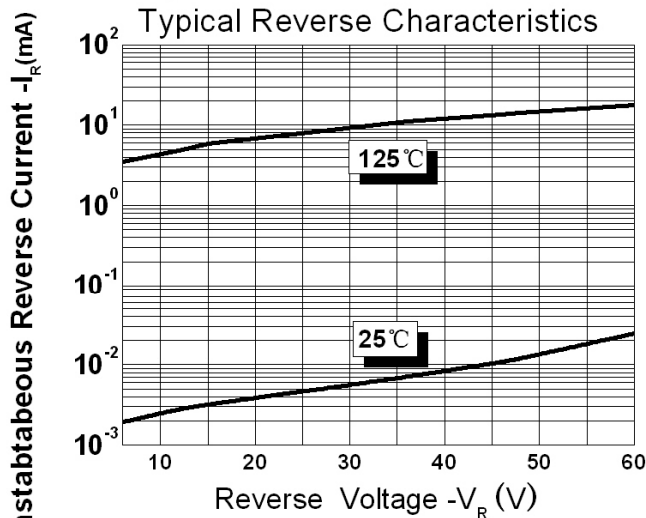
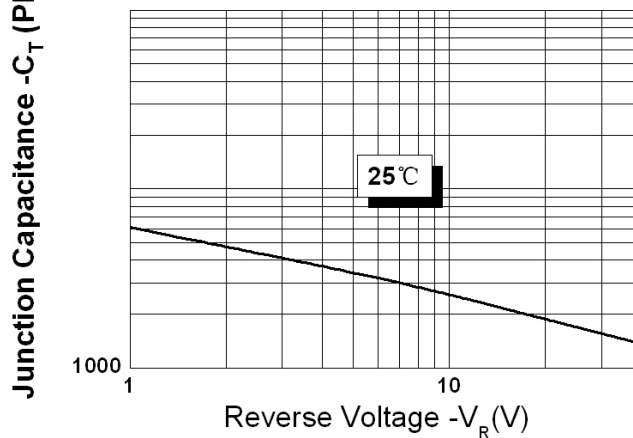


Figure 3
Typical Junction Capacitance



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