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We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Technical Data Green Products

Data Sheet N1152, Rev. -

# Power Surface Mount Schottky Rectifier (135/150V, 60Amp)

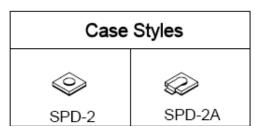
### **Applications:**

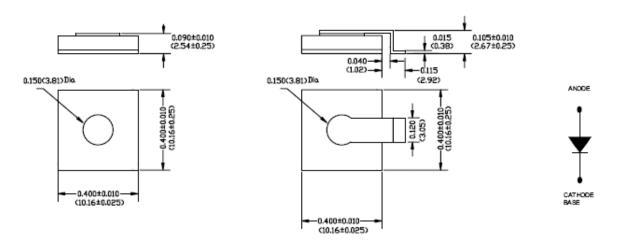
- Switching power supply Redundant power subsystems Reverse battery protection
- Converters Many other high current AC/DC power supplies

#### Features:

- 175 °C T<sub>J</sub> operation
- Low forward voltage drop
- 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





SPD-2 SPD-2A

## Suffix "R" Denotes Reversed Polarity

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## **Maximum Ratings:**

Characteristics	Symbol	Condition		Max.	Units
Peak Inverse Voltage	$V_{RWM}$	-	135	69SPB135/A	V
			150	69SPB150/A	
Max. Average Forward	I <sub>F(AV)</sub>	50% duty cycle, rectangular wave form		60	Α
Max. Peak One Cycle Non- Repetitive Surge Current (per leg)	I <sub>FSM</sub>	8.3 ms, half Sine pulse		860	Α

#### **Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop*	$V_{F1}$	@ 60A, Pulse, T <sub>J</sub> = 25 °C	0.87	V
	$V_{F2}$	@ 60A, Pulse, T <sub>J</sub> = 125 °C	0.72	V
Max. Reverse Current (per leg) *	I <sub>R1</sub>	$@V_R = rated V_R, Pulse, T_J = 25 °C$	0.1	mA
	I <sub>R2</sub>	$@V_R = \text{rated } V_R, \text{ Pulse}, \\ T_J = 125  ^{\circ}\text{C}$	1.6	mA
Max. Junction Capacitance (per leg)	С	$@V_R = 5V, T_C = 25 \text{ °C}$ $f_{SIG} = 1 \text{ MHz}$ $V_{SIG} = 50 \text{ mV}(p-p)$	100	pF

<sup>\*</sup> Pulse Width < 300 $\mu$ s, Duty Cycle <2%

## **Thermal-Mechanical Specifications:**

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	T <sub>J</sub>	-	-55 to +175	°C
Max. Storage Temperature	T <sub>stg</sub>	-	-55 to +175	°C
Maximum Thermal Resistance Junction to Case	$R_{ heta JC}$	DC operation	0.37	°C/W
Case Style		SPD-2/A		

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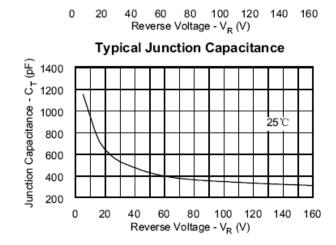
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140

160

# Typical Forward Characteristics 10<sup>2</sup> 175℃ 10<sup>1</sup> Instantaneous Forward Current - I<sub>F</sub> (A) 125℃ 10<sup>0</sup> 25℃ 10<sup>-1</sup> 10<sup>-2</sup> 0.0 0.4 0.6 1.0 0.2 8.0 Forward Voltage Drop - V<sub>F</sub> (V)

# Typical Reverse Characteristics 10<sup>1</sup> Instantaneous Reverse Current - I<sub>R</sub> (mA) 10<sup>0</sup> 10<sup>-1</sup> 10<sup>-2</sup> 10<sup>-3</sup> 50°C 10<sup>-4</sup>



0

20

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