Technical Data Data Sheet N1144, Rev. - **Green Products** 

# Power Surface Mount Schottky Rectifier (135/150V, 30Amp)

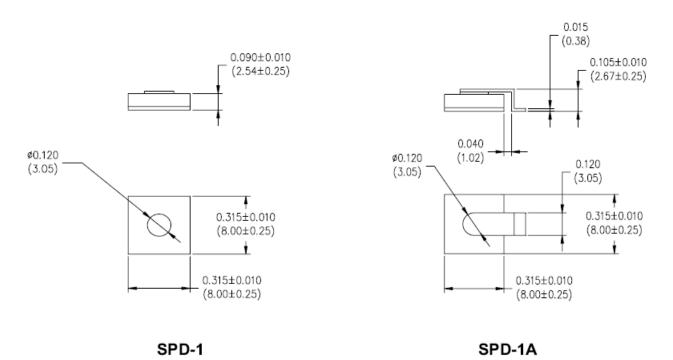
## **Applications:**

- 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 reverse leakage current
- High surge capacities
- Low forward voltage drop
- High frequency operation
- 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



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# **Maximum Ratings:**

Characteristics	Symbol	Condition		Max.	Units
Peak Inverse Voltage	$V_{RWM}$	-	135	39SPA135/A	V
			150	39SPA150/A	
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle, rectangular wave form		30	А
Max. Peak One Cycle Non- Repetitive Surge Current	I <sub>FSM</sub>	8.3 ms, half Sine pulse		570	A

## **Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop*	$V_{F1}$	@ 30A, Pulse, T <sub>J</sub> = 25 °C	0.84	V
	$V_{F2}$	@ 30A, Pulse, T <sub>J</sub> = 125 °C	0.68	V
Max. Reverse Current*	I <sub>R1</sub>	$@V_R = \text{rated } V_R, \text{ Pulse}, \\ T_J = 25  ^{\circ}\text{C}$	1.0	mA
	I <sub>R2</sub>	$@V_R = \text{rated } V_R, \text{ Pulse}, \\ T_J = 125  ^{\circ}\text{C}$	15	mA
Max. Junction Capacitance	Ст	$@V_R = 5V, T_C = 25 \text{ °C} \\ f_{SIG} = 1MHz, \\ V_{SIG} = 50mV(p-p)$	1000	pF

<sup>\*</sup> Pulse Width < 300µs, Duty Cycle <2%

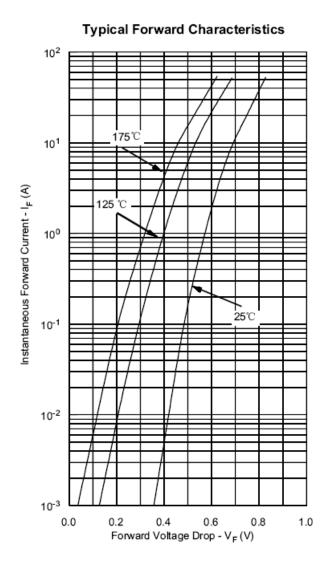
# **Thermal-Mechanical Specifications:**

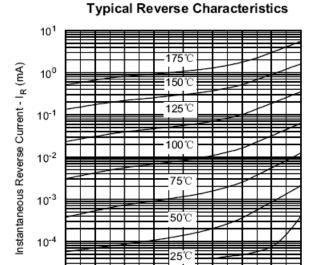
Characteristics	Symbol	Condition	Specification	Units		
Max. Junction Temperature	$T_J$	-	-55 to +175	°C		
Max. Storage Temperature	T <sub>stg</sub>	-	-55 to +175	°C		
Maximum Thermal Resistance Junction to Case	$R_{ hetaJC}$	DC operation	0.50	°C/W		
Case Style	SPD-1/A					

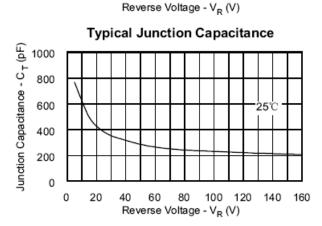
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80

60

100

120

160

10<sup>-5</sup>

0

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