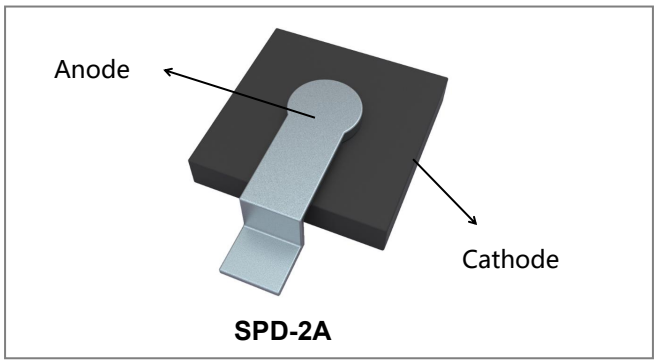
Technical Data
Data Sheet N1149, Rev. B

65SPB015A Power Surface Mount Schottky Rectifier

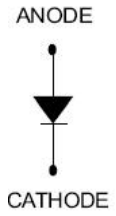


SPD-2A

Features

- 125°C T_J operation
- Low forward voltage drop
- High surge capacities
- High frequency operation
- Guaranteed reverse avalanche capability
- Low profile surface mount package
- Base plate: Pure Sn plated; Terminals: Pure Sn plated
- This is a Pb − Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Schematic & Pin Configuration



Applications

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

Maximum Ratings(limiting values, at 25 °C unless otherwise specified)

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	-	15	V
Average Rectified Forward Current	$I_{F\ (AV)}$	50% duty cycle @T_C =116°C, rectangular wave form	60	A
Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine pulse	860	A

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Electrical Characteristics:

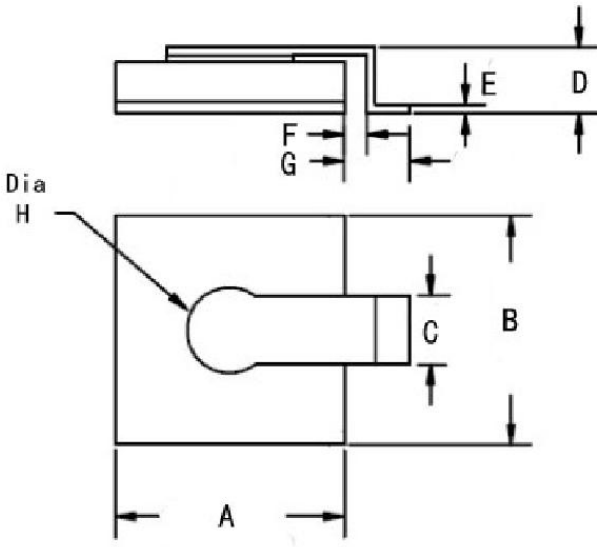
Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop *	V_{F1}	@ 60A, Pulse, T_J = 25 °C	0.40	0.45	V
	V_{F2}	@ 60A, Pulse, T_J = 75 °C	0.36	0.39	V
Reverse Current*	I_{R1}	@V_R = rated V_R, Pulse, T_J = 25 °C	5	20	mA
	I_{R2}	@V_R = rated V_R, Pulse, T_J = 100 °C	166	1000	mA
Junction Capacitance	C_T	@V_R = 5V, T_C = 25 °C f_{SIG} = 1MHz	3330	3600	pF
Voltage Rate of Change	dv/dt	-	-	10,000	V/µs

* Pulse width < 300 µs, duty cycle < 2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-55 to +125	°C
Storage Temperature	T_{stg}	-	-55 to +100	°C
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	0.37	°C/W
Approximate Weight	wt	-	1.1	g

Mechanical Dimensions (Inches/Millimeters)



SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	9.81	10.51	0.386	0.414
B	9.81	10.51	0.386	0.414
C	2.90	3.20	0.114	0.126
D	2.42	2.92	0.095	0.115
E	0.33	0.47	0.013	0.019
F	1.02		0.040	
G	4.02		0.158	
H	3.81		0.150	

SPD-2A

Ratings and Characteristics Curves

Figure1
Typical Forward Characteristics

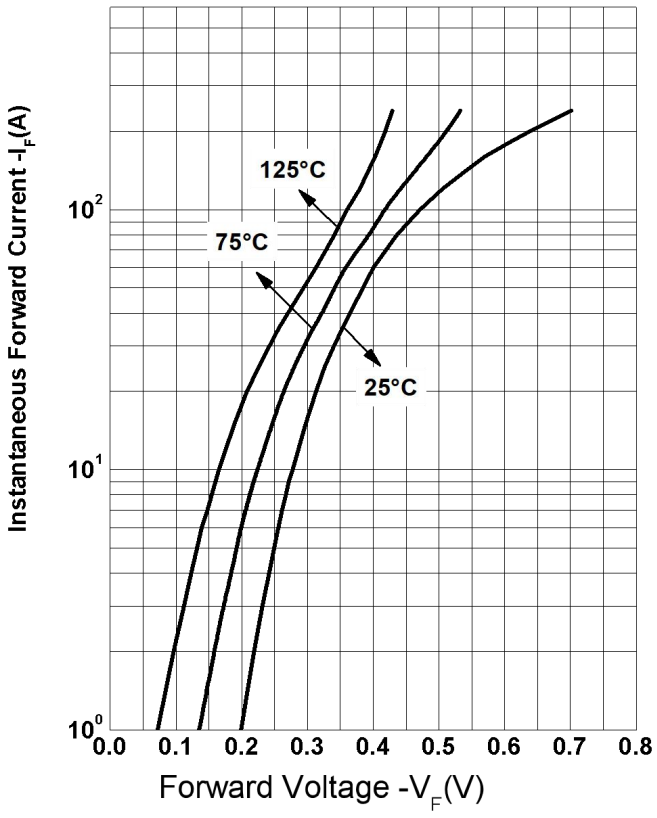


Figure 2
Typical Reverse Characteristics

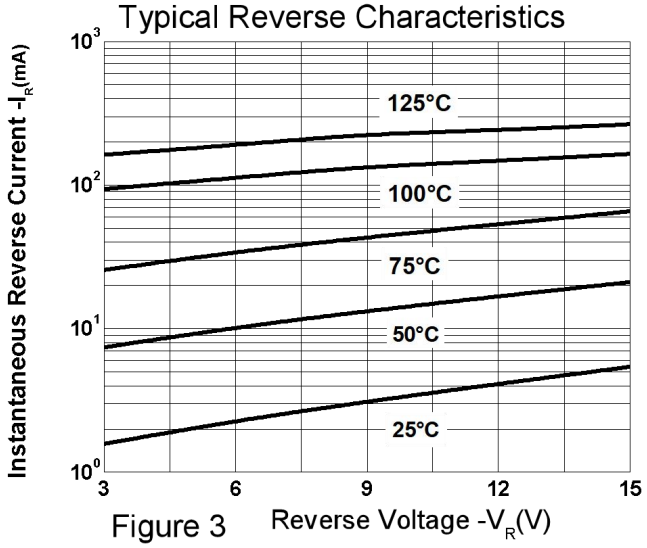
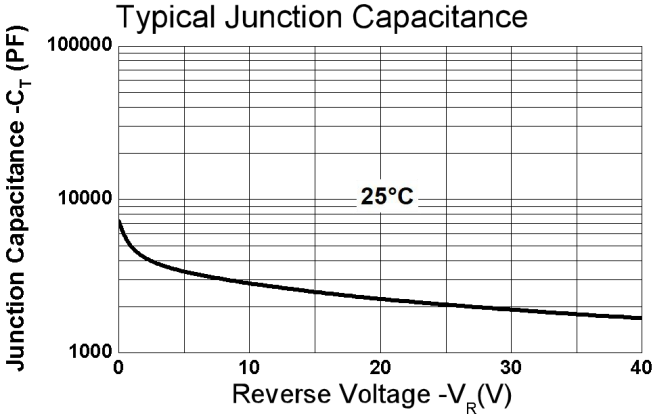


Figure 3
Typical Junction Capacitance



Ordering Information

Device	Package	Shipping
65SPB015A	SPD-2A(Pb-Free)	100pcs/ box

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