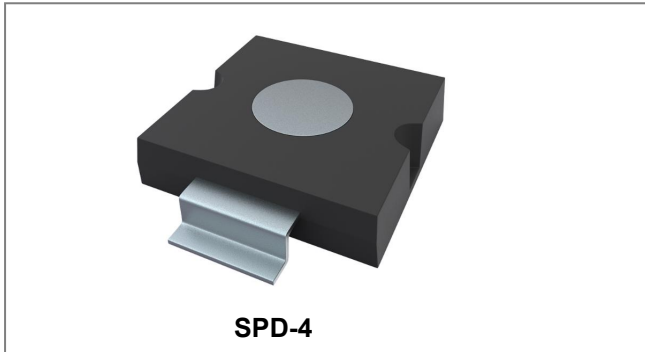


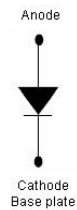
123SPD100A Power Surface Mount Schottky Rectifier



Features

- 175 °C T_J operation
- Low forward voltage drop
- High surge capacities
- High frequency operation
- Guaranteed reverse avalanche capability
- Low profile surface mount package
- Baseplate: 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:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	-	100	V
Average Rectified Forward Current	I _{F(AV)}	50% duty cycle @T _C =116°C, rectangular wave form	120	A
Peak One Cycle Non-Repetitive Surge Current	I _{FSM}	8.3 ms, half Sine pulse	1650	A
Non-Repetitive Avalanche Energy	E _{AS}	T _J =25°C, I _{AS} =0.75A, L=40 mH	11.25	mJ
Repetitive Avalanche Current	I _{AR}	I _{AS} decaying linearly to 0 in 1 µsec Frequency limited by T _J max. V _A =1.5×V _R	0.75	A

Electrical Characteristics:

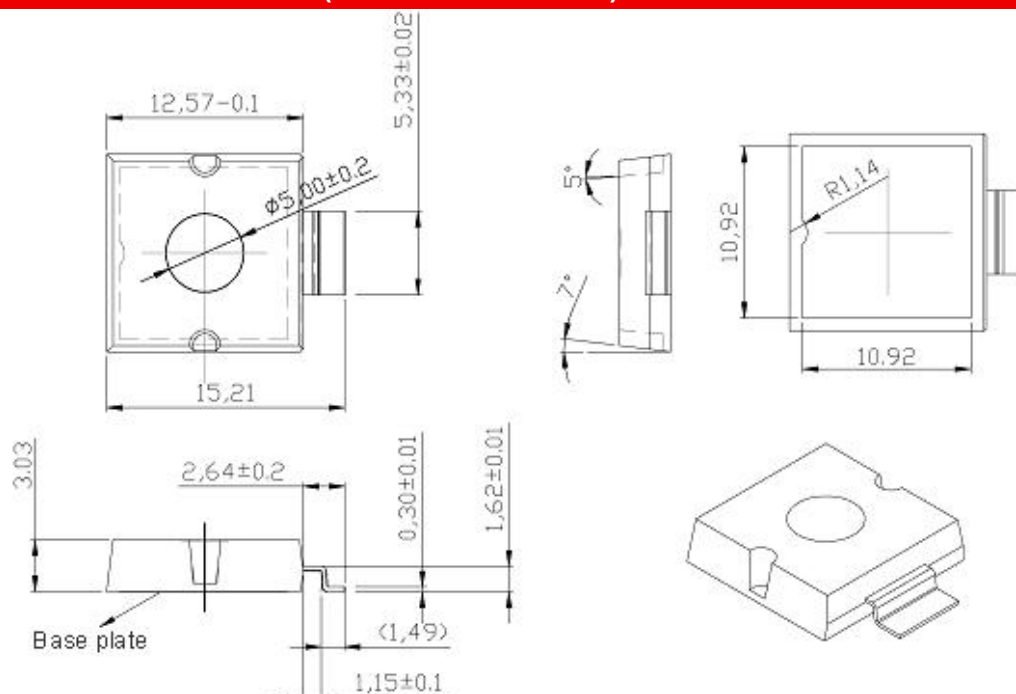
Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop *	V _{F1}	@ 120A, Pulse, T _J = 25 °C	0.80	0.87	V
	V _{F2}	@ 120A, Pulse, T _J = 125 °C	0.65	0.72	V
Reverse Current*	I _{R1}	@V _R = rated V _R , Pulse, T _J = 25 °C	0.001	2.0	mA
	I _{R2}	@V _R = rated V _R , Pulse, T _J = 125 °C	0.8	48.0	mA
Junction Capacitance	C _T	@V _R = 5V, T _C = 25 °C f _{SIG} = 1MHz	2400	3000	pF
Voltage Rate of Change	dv/dt	-	-	10,000	V/μs

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

Thermal-Mechanical Specifications:

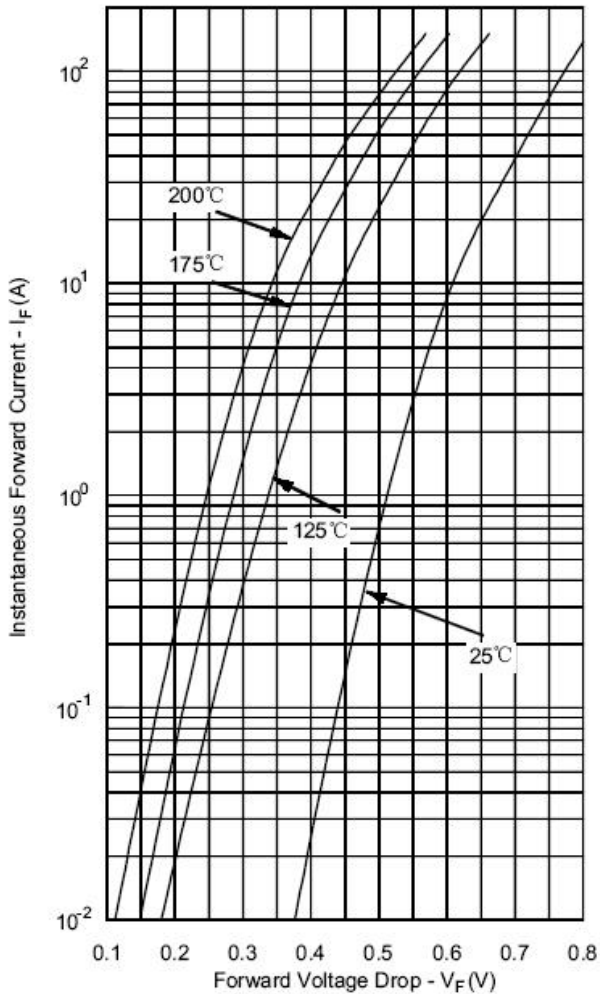
Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T _J	-	-55 to +175	°C
Storage Temperature	T _{stg}	-	-55 to +175	°C
Typical Thermal Resistance Junction to Case	R _{θJC}	DC operation	0.20	°C/W
Approximate Weight	wt	-	2.35	g

Mechanical Dimensions SPD-4(Inches/Millimeters)

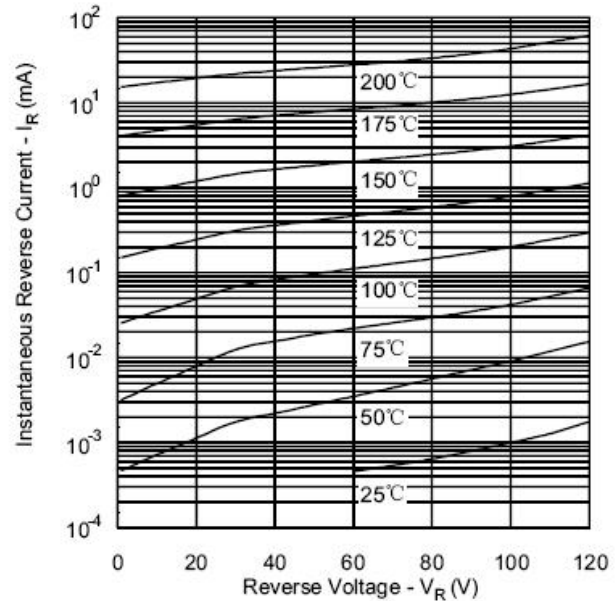


Ratings and Characteristics Curves

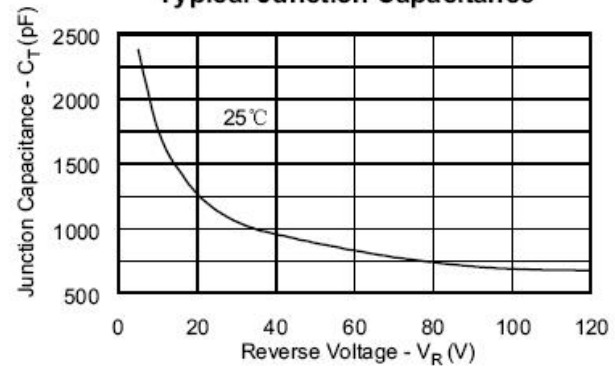
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance

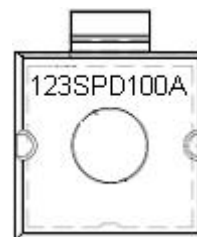


Tube Specification

Device	Package	Shipping
123SPD100A	SPD-4(Pb-Free)	64pcs/ bag

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram



123SPD100A =Part Name

Cautions: Molding resin
Epoxy resin UL:94V-0

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