





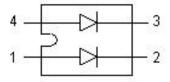
SK2S120-100 High Voltage Power Schottky Rectifier



Features

- International standard package SOT-227
- Epoxy meets UL 94V-0
- Extremely low switching losses
- Low I_{RM} -values
- Copper internally DBC isolated
- This is a Pb Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Applications

- Rectifiers in switch mode power Supplies(SMPS)
- Free wheeling diode in low voltage Converters

Advantages

- · High reliability circuit operation
- Low voltage peaks for reduced Protection circuits
- Low noise switching
- Low losses

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage	V _{RRM}	-		
Working Peak Reverse Voltage	V_{RWM}		100	V
DC Blocking Voltage	V_R			
Average Rectified Forward Current	I _{F(AV)}	50% duty cycle @T _C =105°C,	60(Per Leg)	Α
		rectangular wave form	120(Per Device)	A
Peak One Cycle Non-Repetitive Surge Current (Per Leg)	I _{FSM}	8.3 ms, half Sine pulse	700	Α







Electrical Characteristics:

Characteristics	Symbol	Condition	Тур.	Max.	Units
Forward Voltage Drop(Per Leg)*	V _{F1}	@ 60A, Pulse, T _J = 25 °C @ 120A, Pulse, T _J = 25 °C	-	0.91 1.10	V
	V _{F2}	@ 60A, Pulse, T _J = 125 °C @ 120A, Pulse, T _J = 125 °C	-	0.74 0.95	V
Reverse Current(Per Leg)*	I _{R1}	$@V_R = \text{rated } V_{R,} T_J = 25 ^{\circ}\text{C}$	-	2	mA
	I _{R2}	$@V_R = \text{rated } V_{R, T_J} = 125 ^{\circ}\text{C}$	-	20	mA

^{*} Pulse width < 300 µs, duty cycle < 2%

Thermal-Mechanical Specifications:

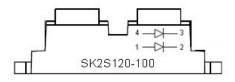
Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	TJ	-	-55 to +150	°C
Storage Temperature	T _{stg}	-	-55 to +150	°C
Thermal Resistance Junction to Case(Per Leg)	R _θ JC	DC operation	0.9	°C/W
Thermal Resistance Junction to Case(Peg Device)	$R_{ heta JC}$	DC operation	0.5	°C/W
Mounting torque(M4)	NA		1.1-1.5/9-13	Nm/
Terminal connection torque(M4)	− M _D	,	1.1-1.5/9-13	lb.in.
Typical Approximate Weight	wt	-	30	g

Ordering Information

Device	Package	Shipping	
SK2S120-100	SOT-227	26noo /DI II K	
	(Pb-Free)	36pcs /BULK	

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

Marking Diagram



S = SMC's Power Module K = SOT-227 Package 2 = Circuit Configuration

S = Schottky Rectifier 120 = Forward Current (120A)

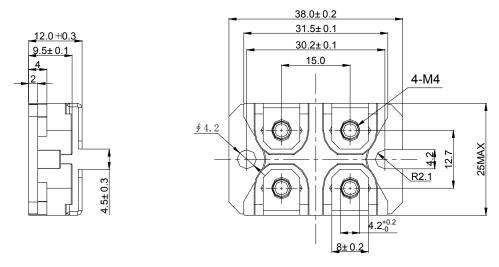
00 = Reverse Voltage (100V)

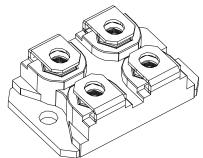






Mechanical Dimensions SOT-227(Millimeters)











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