

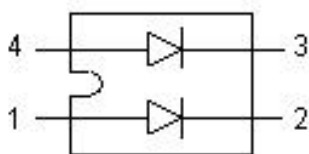
SK2S120-100 High Voltage Power Schottky Rectifier



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 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 @ $T_c = 105^\circ\text{C}$, rectangular wave form	60(Per Leg) 120(Per Device)	A
Peak One Cycle Non-Repetitive Surge Current (Per Leg)	I_{FSM}	8.3 ms, half Sine pulse	700	A

Electrical Characteristics:

Characteristics	Symbol	Condition	Typ.	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 = rated V _R , T _J = 25 °C	-	2	mA
	I _{R2}	@V _R = rated V _R , T _J = 125 °C	-	20	mA

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

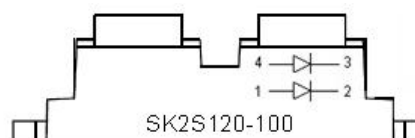
Thermal-Mechanical Specifications:

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

Ordering Information

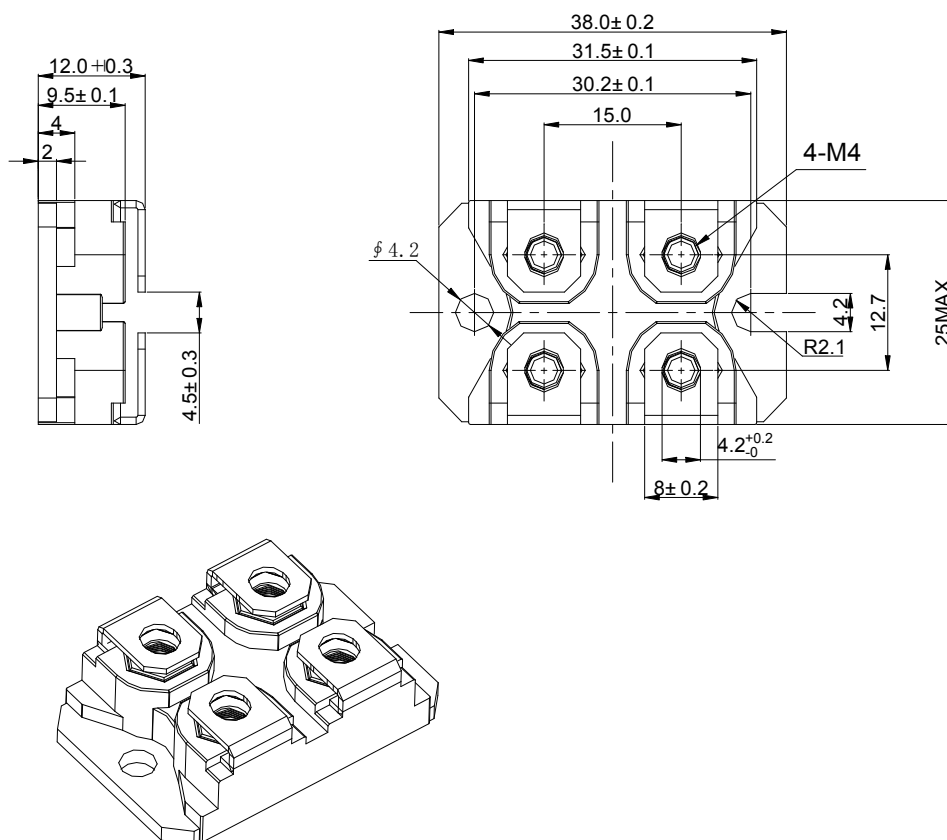
Device	Package	Shipping
SK2S120-100	SOT-227 (Pb-Free)	36pcs /BULK

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)
 100 = Reverse Voltage (100V)

Mechanical Dimensions SOT-227(Millimeters)



Technical Data
Data Sheet N1745, Rev A



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