

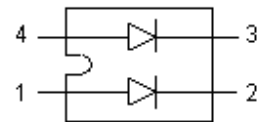
SK2S120-100 High Voltage Power Schottky Rectifier

Applications:

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

Features:

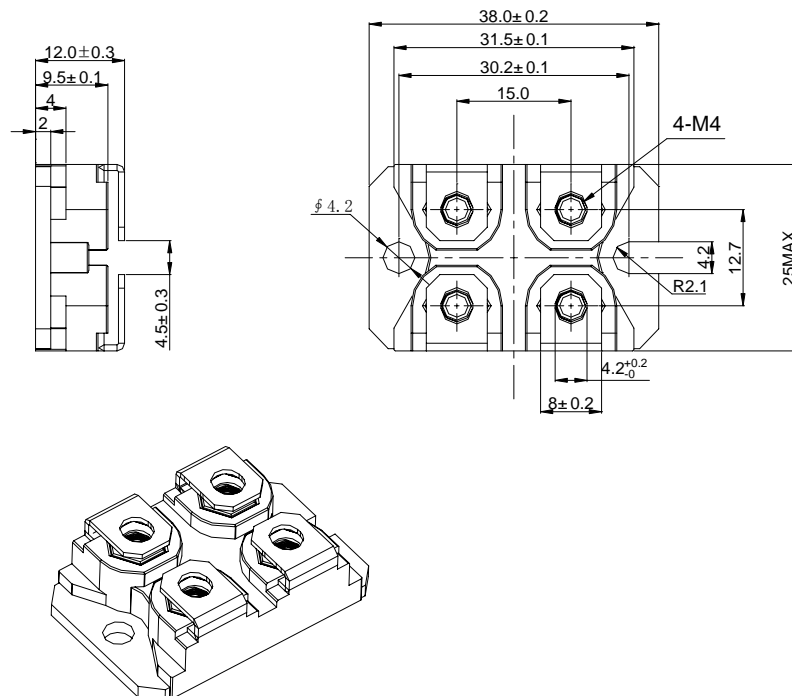
- International standard package SOT-227
- Epoxy meets UL 94V-0
- Extremely low switching losses
- Low I_{RM} -values
- Copper internally DBC isolated
- This is a Pb - Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request



Advantages:

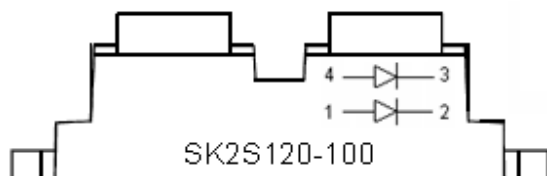
- High reliability circuit operation
- Low voltage peaks for reduced Protection circuits
- Low noise switching
- Low losses

Mechanical Dimensions: In mm



SOT-227

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)

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

Ordering Information:

Device	Package	Shipping
SK2S120-100	SOT-227 (Pb-Free)	10pcs / tube

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units	
Peak Repetitive Reverse Voltage	V_{RRM}	-	100	V	
Average Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_C = 105^\circ\text{C}$, rectangular wave form	peg leg	60	A
			peg device	120	
Peak One Cycle Non-Repetitive Surge Current (peg leg)	I_{FSM}	8.3 ms, half Sine pulse	700	A	

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop (per leg) *	V_{F1}	@ 60A, Pulse, $T_J = 25^\circ\text{C}$ @ 120A, Pulse, $T_J = 25^\circ\text{C}$	0.91 1.10	V
	V_{F2}	@ 60A, Pulse, $T_J = 125^\circ\text{C}$ @ 120A, Pulse, $T_J = 125^\circ\text{C}$	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	T_J	-	-55 to +150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-	-55 to +150	$^\circ\text{C}$
Thermal Resistance Junction to Case(per leg)	$R_{\theta JC}$	DC operation	0.9	$^\circ\text{C/W}$
Thermal Resistance Junction to Case(peg device)	$R_{\theta JC}$	DC operation	0.5	$^\circ\text{C/W}$
Mounting torque(M4)	M_D	-	1.1-1.5/9-13	Nm/ lb.in.
Terminal connection torque(M4)			1.1-1.5/9-13	
Typical Approximate Weight	wt	-	30	g
Case Style	SOT-227			

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