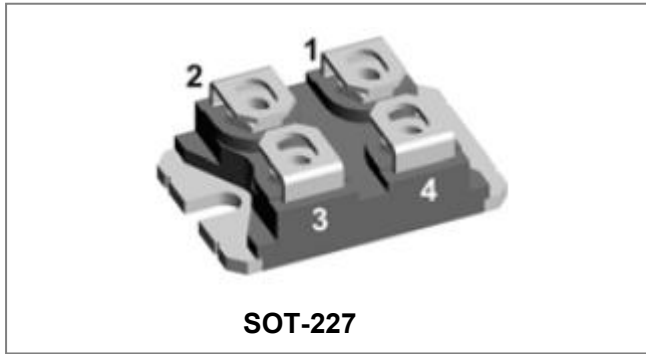


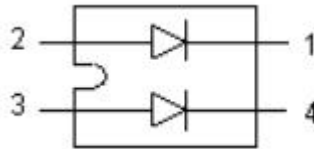
SK2S320-200 Power Schottky Rectifier



Features

- International standard package SOT-227
- Epoxy meets UL 94V-0
- Extremely low switching losses
- Low I_{RM} -values
- Copper internally DBC isolated
- Base plate: Nickel plated; Terminals: Nickel plated
- UL approved file E517293
- 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(limiting values, $T_C = 25^\circ\text{C}$ 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	-	200	V
Average Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_C = 110^\circ\text{C}$, rectangular wave form	160(Peg Leg) 320(Peg Device)	A
Peak One Cycle Non-Repetitive Surge Current (Peg Leg)	I_{FSM}	8.3 ms, half Sine pulse	2000	A
Total Power Dissipation	P_{tot}	$T_C = 25^\circ\text{C}$	310	W
Peak repetitive reverse current per leg	I_{rrm}	$t_p = 2 \mu\text{s}$, 1 kHz	2	A

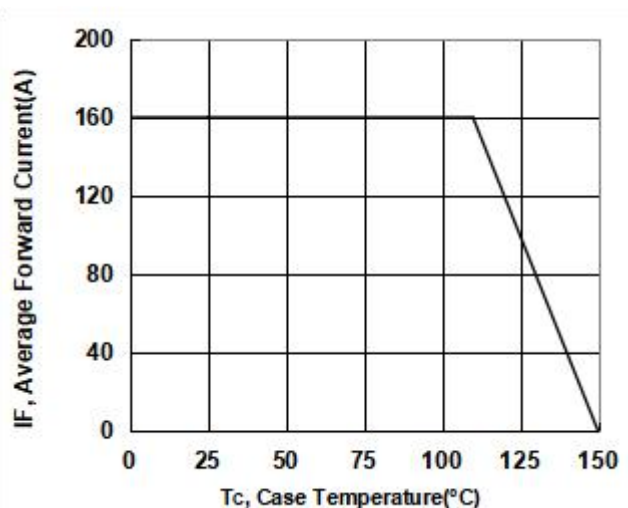
Electrical Characteristics:

Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop(Per Leg)*	V _{F1}	@ 160A, Pulse, T _J = 25 °C	0.90	0.92	V
	V _{F2}	@ 160A, Pulse, T _J = 125 °C	0.80	0.82	V
Reverse Current(Per Leg)*	I _{R1}	@V _R = rated V _R , T _J = 25 °C	0.002	1	mA
	I _{R2}	@V _R = rated V _R , T _J = 125 °C	0.5	30	mA
Isolation Voltage	V _{ISOL}	Ac.50Hz; R.M.S;1min, T _J = 25 °C	-	2500	V
		Ac.50Hz; R.M.S;1sec, T _J = 25 °C	-	3500	

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

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T _J	-	-40 to +150	°C
Storage Temperature	T _{stg}	-	-40 to +150	°C
Thermal Resistance Junction to Case(Peg Device)	R _{θJC}	DC operation	0.3	°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

Ratings and Characteristics Curves


Forward Current VS Case temperature Diode

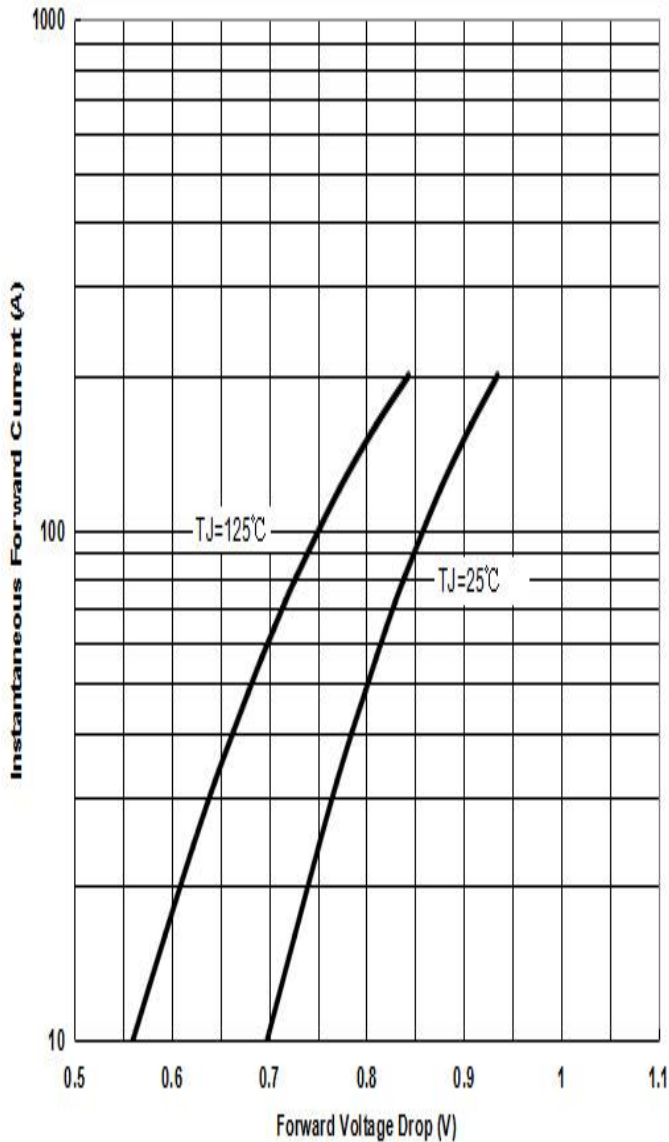


Fig.3 - Typical Instantaneous Forward Voltage Characteristics

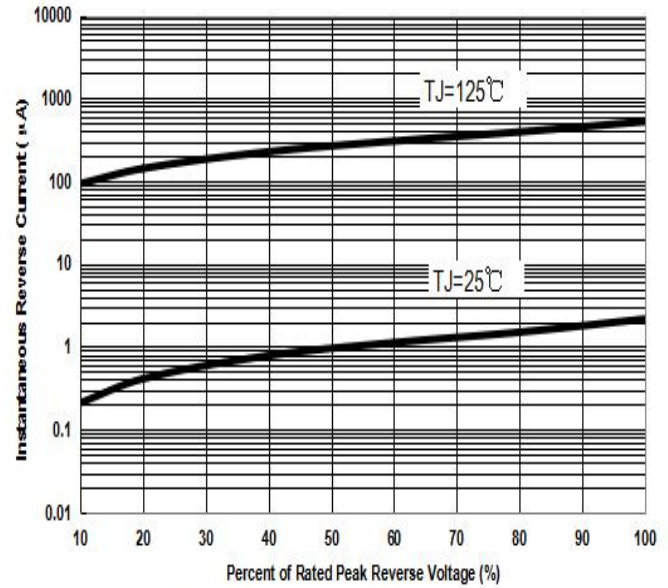


Fig.4 - Typical Reverse Characteristics

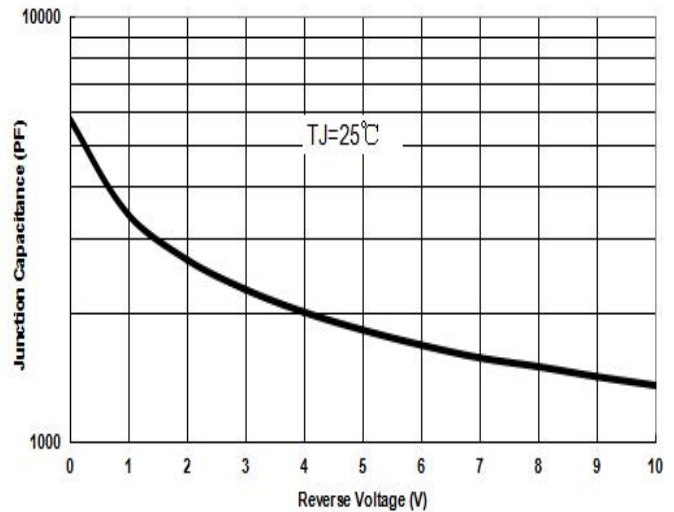
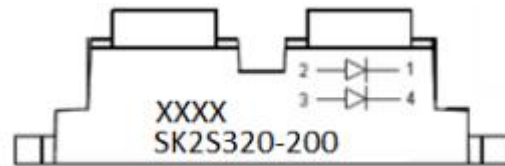


Fig.5 - Typical Junction Capacitance

Ordering Information

Device	Package	Shipping
SK2S320-200	SOT-227 (Pb-Free)	36pcs /BULK

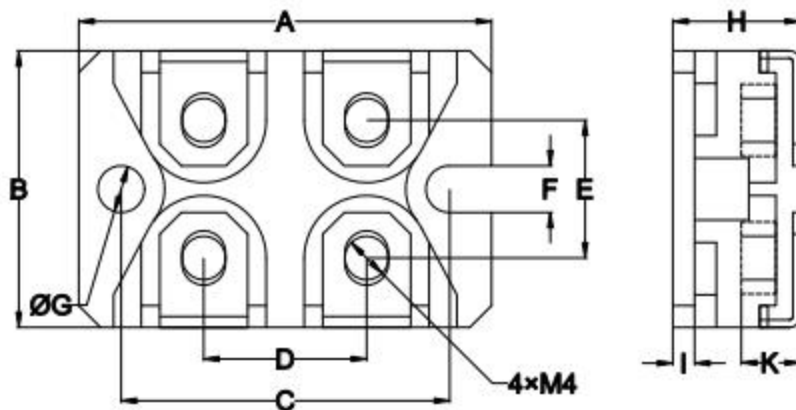
Marking Diagram



Where XXXX is YYWW

- S = SMC's Power Module
- K = SOT-227 Package
- 2 = Circuit Configuration
- S = Schottky Rectifier
- 320 = Forward Current (320A)
- 200 = Reverse Voltage (200V)
- YY = Year
- WW = Week

Mechanical Dimensions SOT-227(Millimeters)



SYMBOL	Dimensions in millimeters	
	Min.	Max.
A	37.8	38.2
B	24.8	25.21
C	29.9	30.55
D	14.5	15.5
E	12.2	13.45
F	4.1	4.31
G	φ4.1	φ4.31
H	11	12.5
I	1.9	2.1
K	4.3	6.5

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