



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



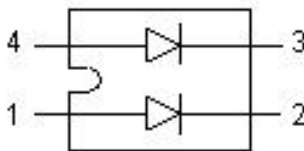
SK2S160-100 Power Schottky Rectifier



Features

- International standard package SOT-227
- Very low VF
- Extremely low switching losses
- Low I_{RM} -values
- 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)
- Insulated package($V_{ISO}=2500V_{RMS}$)
- Free wheeling diode in low voltage Converters

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 @ $T_C = 105^\circ C$, rectangular wave form	80(Per Leg) 160(Per Device)	A
Peak One Cycle Non-Repetitive Surge Current (Per Leg)	I_{FSM}	8.3 ms, half Sine pulse	1000	A
Non-Repetitive Avalanche Energy(Per Leg)	E_{AS}	$T_J = 25^\circ C$, $I_{AS} = 12A$, $L = 180\mu H$ non repetitive	16	mJ
Total Power Dissipation	P_{tot}	$T_C = 25^\circ C$	150	W
Repetitive Avalanche Current (Per Leg)	I_{AR}	Current decaying linearly to zero in 1 μsec Frequency limited by T_J max. $V_A = 1.5 \times V_R$ typical	1.2	A

Electrical Characteristics:

Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop(Per Leg)*	V _{F1}	@ 80A, Pulse, T _J = 25 °C	-	0.80	V
	V _{F2}	@ 80A, Pulse, T _J = 125 °C @ 160A, Pulse, T _J = 125 °C	-	0.70 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
Voltage Rate of Change	dv/dt	-	-	5000	V/μs

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

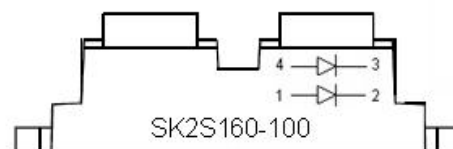
Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T _J	-	-40 to +150	°C
Storage Temperature	T _{stg}	-	-40 to +150	°C
Typical 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

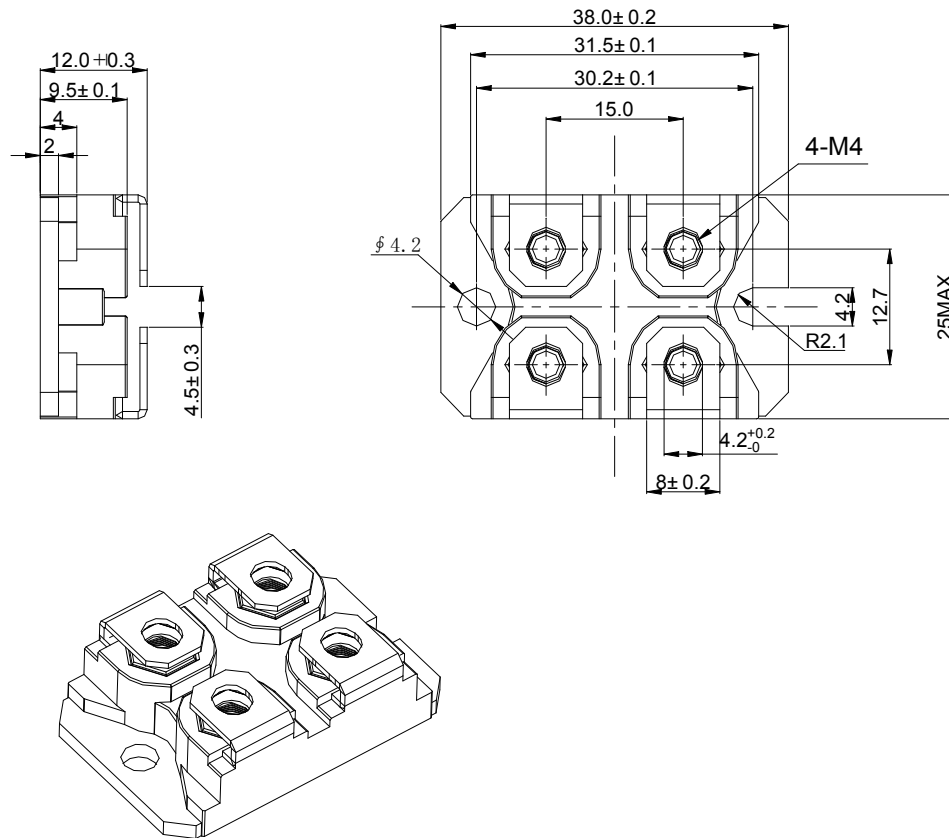
Device	Package	Shipping
SK2S160-100	SOT-227 (Pb-Free)	36pcs /BULK

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
 160 = Forward Current (160A)
 100 = Reverse Voltage (100V)

Mechanical Dimensions SOT-227(Millimeters)



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