

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!



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SK320A SCHOTTKY RECTIFIER


SMA

Features

- Small foot print, surface mountable
- Very low forward voltage drop
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- Green products in compliance the ROHS directive
- 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

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage	V_{RRM}	-	200	V
Working Peak Reverse Voltage	V_{RWM}			
DC Blocking Voltage	V_R			
Average Rectified Forward Current	$I_F (AV)$	50% duty cycle @ $T_L = 100^\circ\text{C}$, rectangular wave form	3	A
Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3ms, Half Sine pulse, $T_c = 25^\circ\text{C}$	110	A

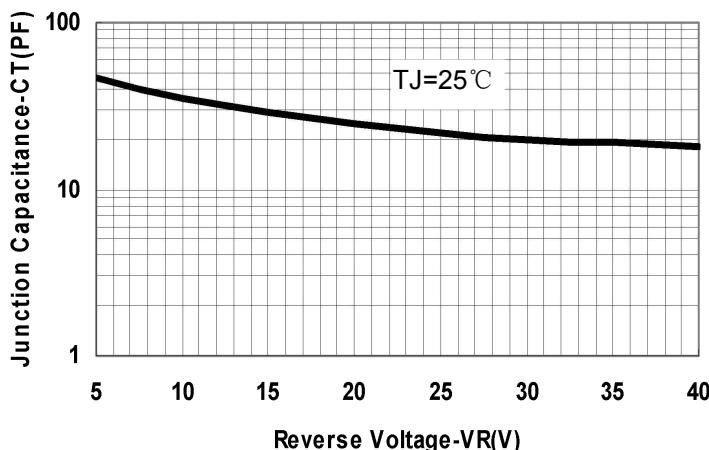
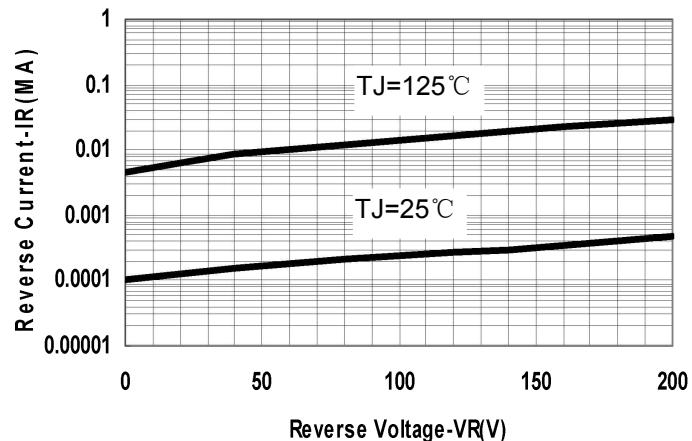
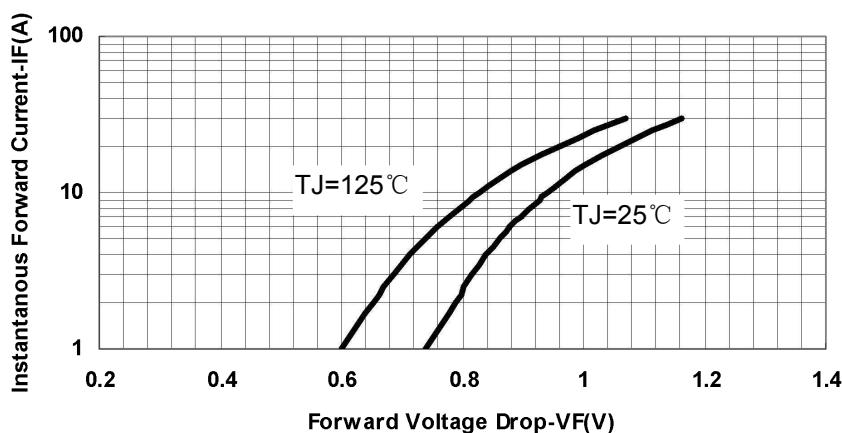
Electrical Characteristics:

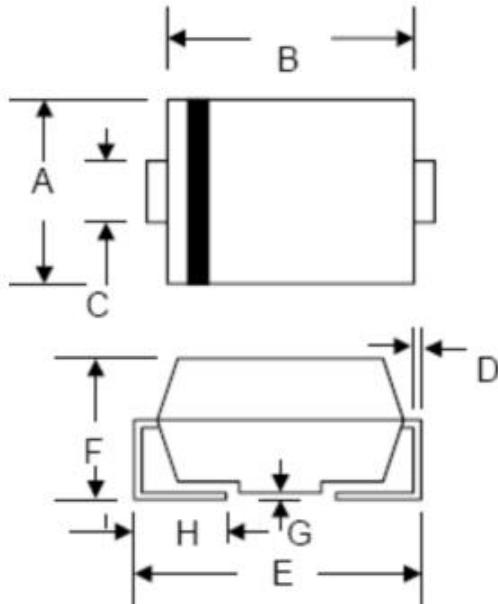
Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop*	V_{F1}	@ 3A, Pulse, $T_J = 25^\circ\text{C}$	0.81	0.90	V
	V_{F1}	@ 3A, Pulse, $T_J = 125^\circ\text{C}$	0.70	0.75	V
Reverse Current*	I_{R1}	@ $V_R = \text{rated } V_R, T_J = 25^\circ\text{C}$	0.0006	1.0	mA
	I_{R2}	@ $V_R = \text{rated } V_R, T_J = 125^\circ\text{C}$	0.03	6.0	mA
Junction Capacitance	C_T	@ $V_R = 5\text{V}, T_c = 25^\circ\text{C}, f_{SIG} = 1\text{MHz}$	50	100	pF
Series Inductance	L_s	Measured lead to lead 5 mm from package body	8.0	-	nH
Voltage Rate of Change	dv/dt	-	-	10,000	$\text{V}/\mu\text{s}$

* 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
Typical Thermal Resistance Junction to Lead	R_{0JL}	DC operation	20	°C/W
Typical Thermal Resistance Junction to Ambient	R_{0JA}	DC operation	77	°C/W
Approximate Weight	wt	-	2	g

Ratings and Characteristics Curves

Fig.1-Typical Junction Capacitance

Fig.2-Typical Values Of Reverse Current

Fig.3-Typical Forward Voltage Drop Characteristics

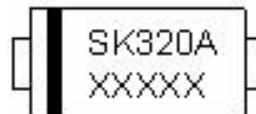
Mechanical Dimensions SMA


SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.40	2.84	0.094	0.112
B	3.99	4.75	0.157	0.187
C	1.05	1.70	0.041	0.067
D	0.15	0.51	0.006	0.020
E	4.80	5.66	0.189	0.223
F	1.90	2.95	0.075	0.116
G	0.05	0.203	0.002	0.008
H	0.76	1.52	0.030	0.600

Ordering Information

Device	Package	Shipping
SK320A	SMA	5000pcs / reel

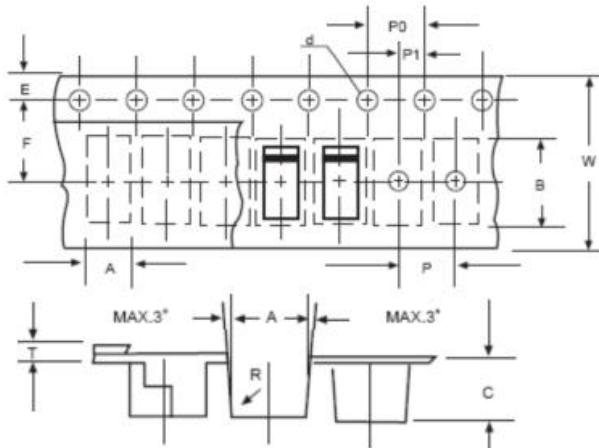
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram


Where XXXXX is YYWWL

SK = Device Type
 3 = Forward Current (3A)
 20 = Reverse Voltage (200V)
 A = Package type
 YY = Year
 WW = Week
 L = Lot Number

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

Carrier Tape & Reel Specification SMA


SYMBOL	Millimeters	
	Min.	Max.
A	2.97	3.17
B	5.70	5.90
C	2.32	2.52
d	1.40	1.60
E	1.40	1.60
F	5.60	5.70
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
T	0.25	0.35
W	11.80	12.20

Technical Data
Data Sheet N0949, Rev. B



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