

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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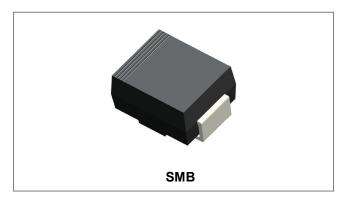








## **SK34B SCHOTTKY RECTIFIER**



#### **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 Working Peak Reverse Voltage	V <sub>RRM</sub> V <sub>RWM</sub>	-	40	V
DC Blocking Voltage	V <sub>R</sub>		10	
Average Rectified Forward Current	I <sub>F (AV)</sub>	50% duty cycle @T <sub>L</sub> =105°C(Note1), rectangular wave form	3	А
Peak One Cycle Non-Repetitive Surge Current	I <sub>FSM</sub>	8.3ms, Half Sine pulse, T <sub>c</sub> = 25 °C	75	А

Note1: Rectangular wave form, 50% duty cycle,  $T_L$  (Lead Temperature) =  $T_T$  (Terminal Temperature)

#### **Electrical Characteristics:**

Characteristics	Symbol	Condition	Тур.	Max.	Units
Forward Voltage Drop*	V <sub>F1</sub>	@ 3A, Pulse, T <sub>J</sub> = 25 °C	0.58	0.63	V
	V <sub>F2</sub>	@ 3A, Pulse, T <sub>J</sub> = 125 °C	0.50	0.57	V
Reverse Current*	I <sub>R1</sub>	@V <sub>R</sub> = rated V <sub>R</sub> , T <sub>J</sub> = 25 °C	0.0001	1.0	mA
	I <sub>R2</sub>	@V <sub>R</sub> = rated V <sub>R</sub> , T <sub>J</sub> = 125 °C	0.004	20	mA
Junction Capacitance	Ст	$@V_R = 5V, T_C = 25  ^{\circ}C, f_{SIG} = 1MHz$	45	60	pF
Series Inductance	Ls	Measured lead to lead 5 mm from package body	8.0	-	nH
Voltage Rate of Change	dv/dt	-	-	10,000	V/μs

<sup>\*</sup> Pulse width < 300 µs, duty cycle < 2%



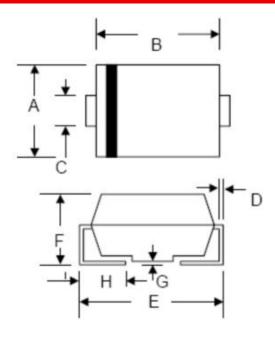




## **Thermal-Mechanical Specifications:**

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	TJ	-	-55 to +150	°C
Storage Temperature	$T_{stg}$	-	-55 to +150	°C
Typical Thermal Resistance Junction to Lead	$R_{ heta JL}$	DC operation	25	°C/W
Approximate Weight	wt	-	0.09	g

#### **Mechanical Dimensions SMB**



SYMBOL	Millimeters		Inches	
STIMBUL	Min.	Max.	Min.	Max.
А	3.30	3.94	0.130	0.155
В	4.06	4.70	0.160	0.185
С	1.80	2.20	0.071	0.087
D	0.152	0.305	0.006	0.012
E	4.80	5.59	0.189	0.220
F	2.10	2.60	0.083	0.102
G	0.051	0.203	0.002	0.008
Н	0.76	1.52	0.030	0.060

### **Ordering Information**

Device	Package	Shipping
SK34B	SMB	3000pcs / 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**

SK34B XXXXX

Where XXXXX is YYWWL

SK = Device Type
3 = Forward Current (3A)
4 = Reverse Voltage (40V)
B = Package type
YY = Year
WW = Week

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

= Lot Number

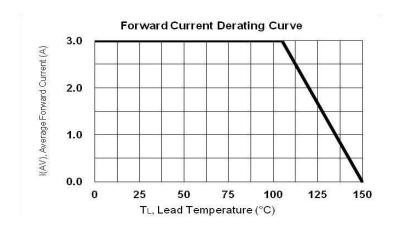
<sup>•</sup> http://www.smc-diodes.com - sales@ smc-diodes.com •



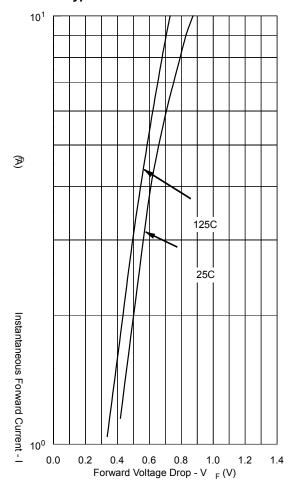




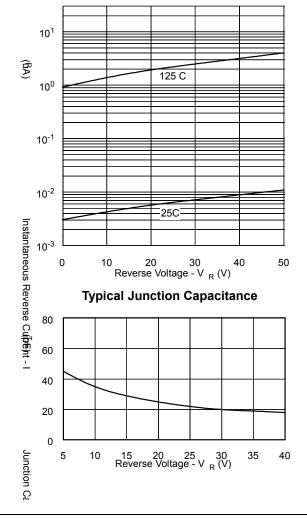
## **Ratings and Characteristics Curves**



#### **Typical Forward Characteristics**



### Typical Reverse Characteristics



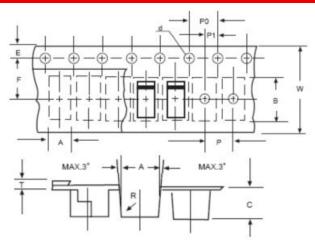
- China Germany Korea Singapore United States
  - http://www.smc-diodes.com sales@ smc-diodes.com •







### **Carrier Tape Specification SMB**



SYMBOL	Millimeters		
STIMBOL	Min.	Max.	
Α	2.97	3.17	
В	5.70	5.90	
С	2.32	2.52	
d	1.40	1.60	
E	1.40	1.60	
F	5.60	5.70	
Р	3.90	4.10	
P0	3.90	4.10	
P1	1.90	2.10	
Т	0.25	0.35	
W	11.80	12.20	

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