

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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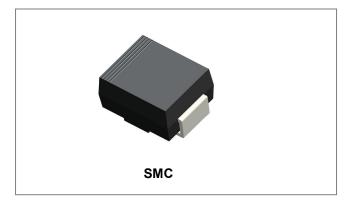








# S3A THRU S3M SURFACE MOUNT GENERAL RECTIFIER Reverse Voltage - 50 to 1000 Volts Forward Current - 3.0 Amperes



#### **Features**

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low reverse leakage
- · Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 260° C/10 seconds at terminals
- This is a Pb Free Device
- . All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

## **Circuit Diagram**



#### **Mechanical Data**

- Case: SMC molded plastic
- Lead: Solder Plated, Solderable Per MIL-STD 750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.21 grams

### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	S3A	S3B	S3D	S3G	S3J	S3K	S3M	Units
Maximum repetitive peak reverse voltage Maximum DC blocking voltage	$V_{\text{RRM}}$ $V_{\text{DC}}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum average forward rectified current @T <sub>L</sub> = 110°C	I <sub>(AV)</sub>	3.0				Α			
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	100.0				А			
Maximum instantaneous forward voltage at 3.0A	V <sub>F</sub>	1.1			V				
Maximum DC reverse current @T <sub>A</sub> = 25°C at rated DC blocking voltage @T <sub>A</sub> = 100°C	I <sub>R</sub>	5.0 100.0			μA				
Typical Junction Capacitance (Note 1)	Сл	60.0					pF		
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	50.0					°C/W		
Operating and Storage Temperature Range	T <sub>J,</sub> T <sub>STG</sub>	-65 to +175					°C		

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas.

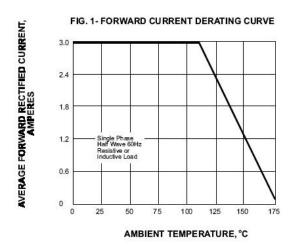
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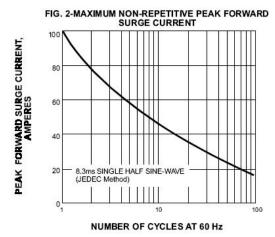


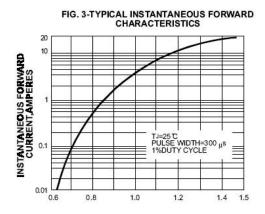




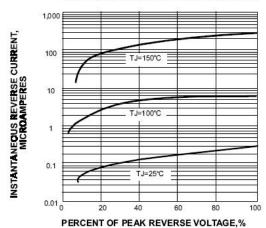
#### **Ratings and Characteristics Curves**



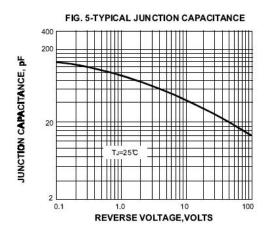


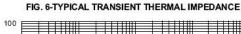


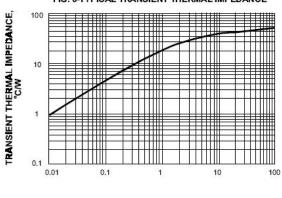




INSTANTANEOUS FORWARD VOLEAGE,







t,PULSE DURATION,sec.

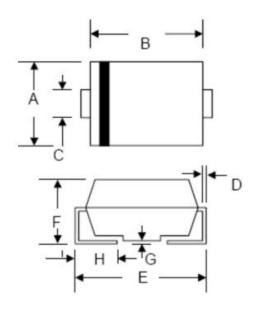
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## **Mechanical Dimensions SMC**



CVMPOL	Millir	meters	Inches		
SYMBOL	Min. Max.		Min.	Max.	
А	5.59	6.22	0.220	0.245	
В	6.60	7.11	0.260	0.280	
С	2.90	3.20	0.114	0.126	
D	0.152	0.305	0.006	0.012	
Е	7.75	8.13	0.305	0.320	
F	2.00	2.62	0.079	0.103	
G	-	0.203	-	0.008	
Н	0.76	1.52	0.030	0.060	

## **Ordering Information**

Device	Package	Shipping
S3A-S3M	SMC (Pb-Free)	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**



Where XXXXX is YYWWL

 S3A
 = Part Name

 YY
 = Year

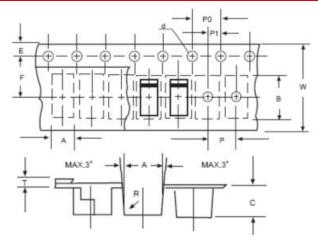
 WW
 = Week

 L
 = Lot Number

Cautions: Molding resin

Epoxy resin UL:94V-0

## **Carrier Tape Specification SMC**



SYMBOL	Millimeters			
STIMBOL	Min.	Max.		
Α	5.90	6.10		
В	8.20	8.40		
С	2.40	2.60		
d	1.40	1.60		
E	1.40	1.60		
F	7.60	7.70		
Р	7.90	8.10		
P0	3.90	4.10		
P1	3.90	4.10		
Т	-	0.600		
W	15.80	16.20		

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