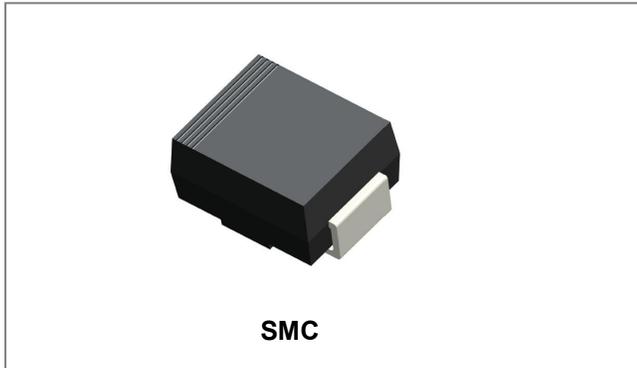


## S5AC THRU S5MC

### SURFACE MOUNT GLASS PASSIVATED RECTIFIER



#### Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop
- Low Power Loss
- Built-in Strain Relief
- Plastic Case Material has UL Flammability Classification Rating 94V-0
- 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

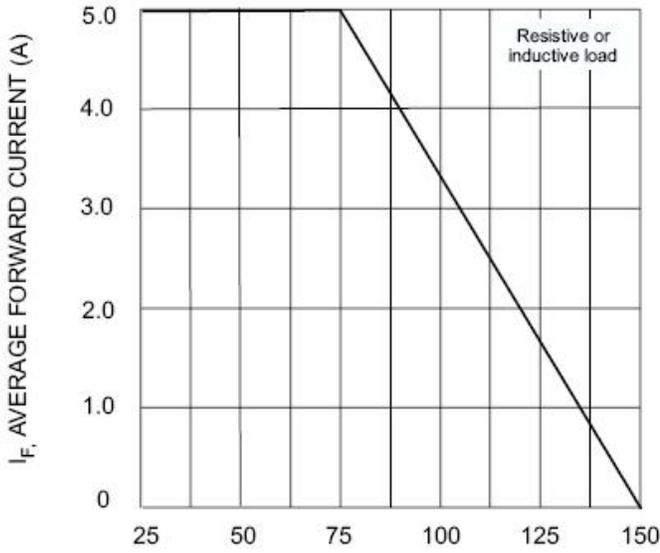
- Case: SMC molded plastic
- Lead: Solder Plated , Solderable Per MIL-STD 750 ,Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.21 grams

#### Maximum Ratings and Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

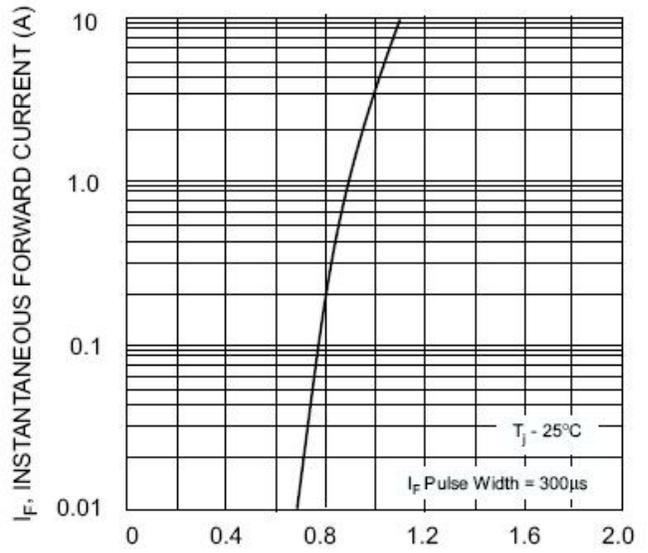
Characteristics	Symbol	S5AC	S5BC	S5DC	S5GC	S5JC	S5KC	S5MC	Units
Peak Repetitive Reverse Voltage	$V_{RRM}$								
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	400	600	800	1000	V
DC Blocking Voltage	$V_R$								
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Average Rectified Output Current @ $T_L=75^{\circ}\text{C}$	$I_O$	5.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	100							A
Forward Voltage @ $I_F = 5.0\text{ A}$	$V_F$	1.15							V
Peak Reverse Current @ $T_A = 25^{\circ}\text{C}$	$I_{RM}$	10							$\mu\text{A}$
At Rated DC Blocking Voltage @ $T_A = 125^{\circ}\text{C}$		250							
Typical Junction Capacitance(Note2)	$C_J$	40							pF
Typical Thermal Resistance Junction to Lead (Note 3)	$R_{\theta JL}$	10							$^{\circ}\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +150							$^{\circ}\text{C}$

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
 2. Mounted on P.C.B. with 8.0mm<sup>2</sup> land areas.

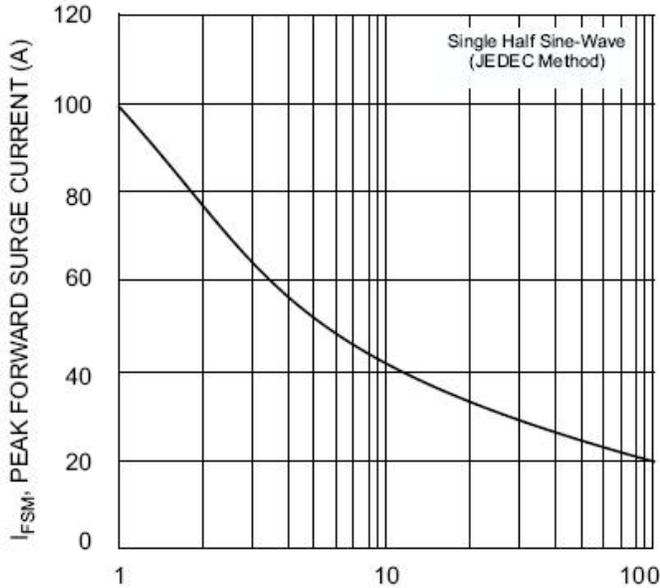
**Ratings and Characteristics Curves**



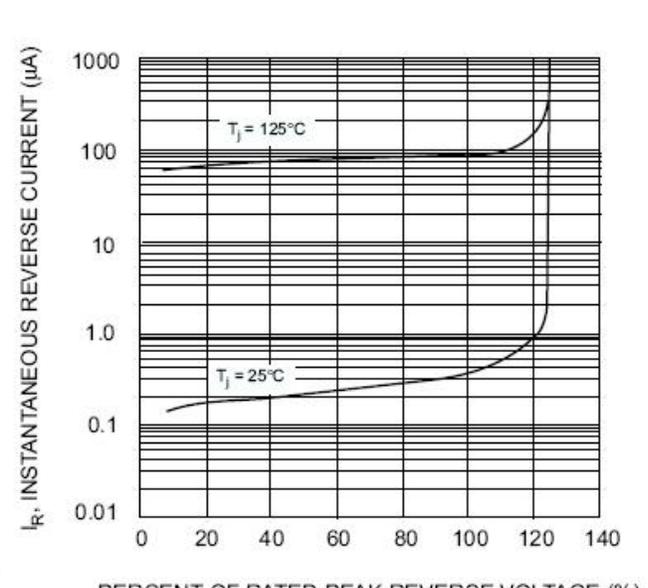
$T_T$ , TERMINAL TEMPERATURE (°C)  
Fig. 1 Forward Current Derating Curve



$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 2 Typical Forward Characteristics

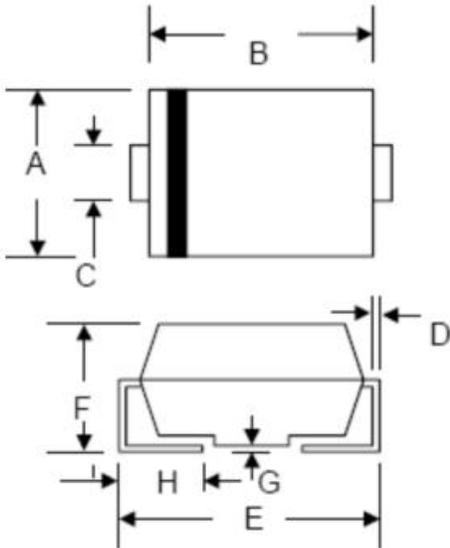


NUMBER OF CYCLES AT 60 Hz  
Fig. 3 Forward Surge Current Derating Curve



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)  
Fig. 4 Typical Reverse Characteristics

**Mechanical Dimensions SMC**



SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	5.59	6.22	0.220	0.245
B	6.60	7.11	0.260	0.280
C	2.90	3.20	0.114	0.126
D	0.152	0.305	0.006	0.012
E	7.75	8.13	0.305	0.320
F	2.00	2.62	0.079	0.103
G	-	0.203	-	0.008
H	0.76	1.52	0.030	0.060

**Ordering Information**

Device	Package	Shipping
S5AC-S5MC	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**

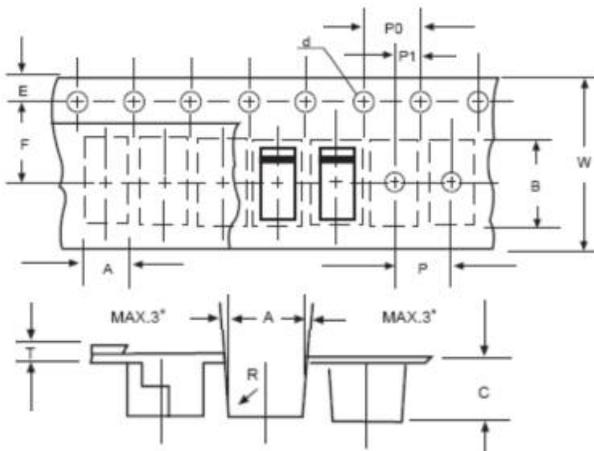


Where XXXXX is YYWWL

S5AC = Part Name  
YY = Year  
WW = Week  
L = Lot Number

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

**Carrier Tape Specification SMC**



SYMBOL	Millimeters	
	Min.	Max.
A	5.90	6.10
B	8.20	8.40
C	2.40	2.60
d	1.40	1.60
E	1.40	1.60
F	7.60	7.70
P	7.90	8.10
P0	3.90	4.10
P1	3.90	4.10
T	-	0.600
W	15.80	16.20

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