

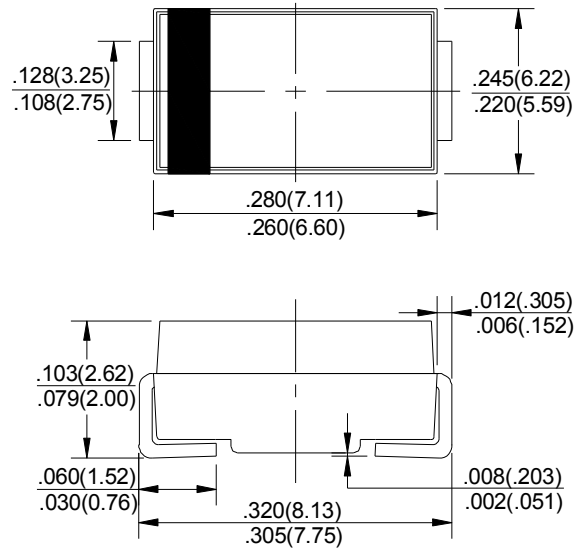
CURRENT 4.0 Ampere  
 VOLTAGE RANG 50 to 1000 Volts

# S4AC THRU S4MC

## Features

- ✧ For surface mounted application
- ✧ Glass passivated junction chip.
- ✧ Low forward voltage drop
- ✧ High current capability
- ✧ Easy pick and place
- ✧ High surge current capability
- ✧ Plastic material used carries Underwriters Laboratory Classification 94V-0
- ✧ High temperature soldering: 260°C/10 seconds at terminals
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode.

### DO-214AB/SMC



Dimensions in inches and (millimeters)

## Mechanical Data

- ✧ Case: Molded plastic
- ✧ Terminals: Pure tin plated, lead free.
- ✧ Polarity: Indicated by cathode band
- ✧ Packaging: 16mm tape per EIA STD RS-481
- ✧ Weight: 0.21 grams

## Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%

Type Number	Symbol	S4A	S4B	S4D	S4G	S4J	S4K	S4M	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @ $T_L=75^\circ C$	$I_{F(AV)}$	4							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	100							A
Maximum Instantaneous Forward Voltage (Note 1) @ 4 A	$V_F$	1.15							V
Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=125^\circ C$	$I_R$	10 250							$\mu A$ $\mu A$
Typical Reverse Recovery Time (Note 2)	$T_{rr}$	1.5							$\mu S$
Typical Junction Capacitance (Note 3)	$C_j$	60							pF
Typical Thermal Resistance	$R_{\theta JL}$ $R_{\theta JA}$	13 47							$^\circ C/W$
Operating Temperature Range	$T_J$	- 55 to + 150							$^\circ C$
Storage Temperature Range	$T_{STG}$	- 55 to + 150							$^\circ C$

Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle  
 2. Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$   
 3. Measured at 1 MHz and Applied  $V_R=4.0$  Volts

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**S4AC THRU S4MC**

RATING AND CHARACTERISTIC CURVES S4A Thru S4M

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

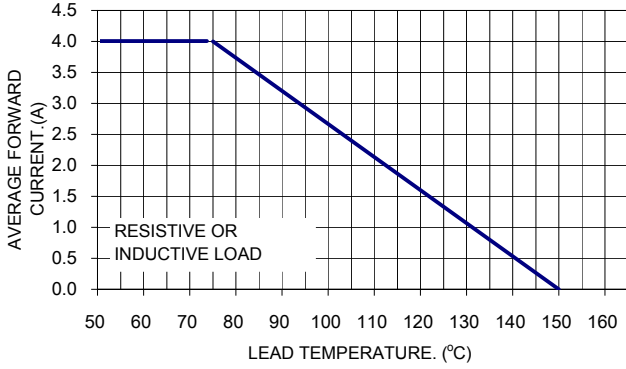


FIG.2- TYPICAL REVERSE CHARACTERISTICS

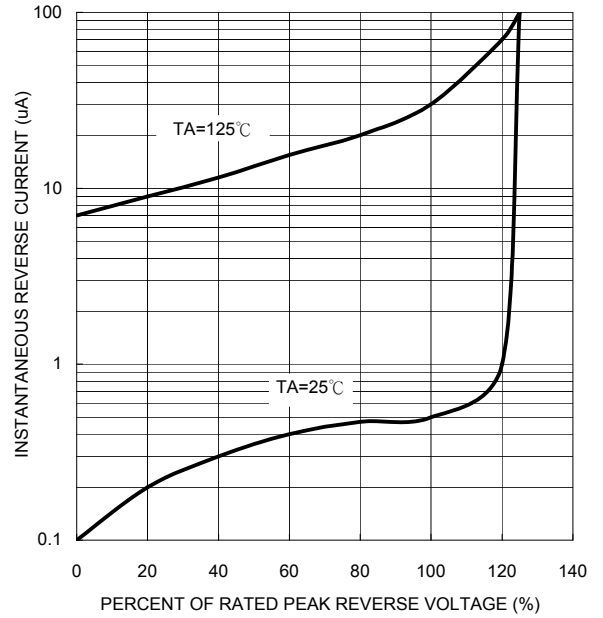


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

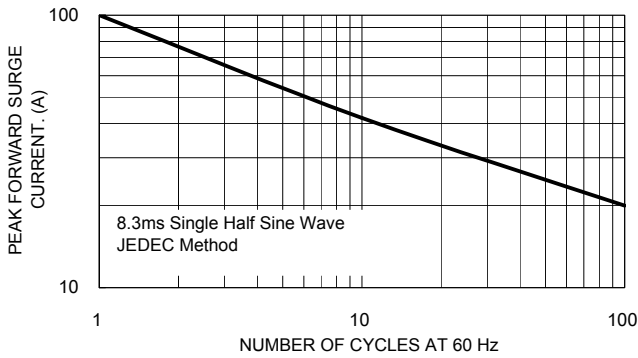


FIG.5- TYPICAL FORWARD CHARACTERISTICS

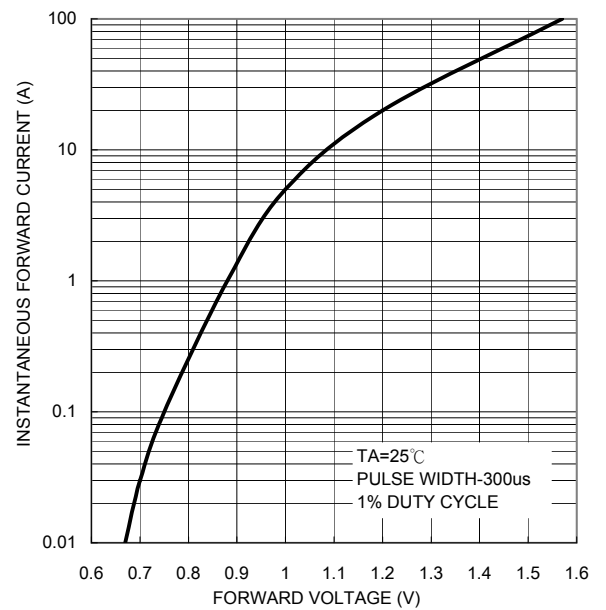


FIG.4- TYPICAL JUNCTION CAPACITANCE

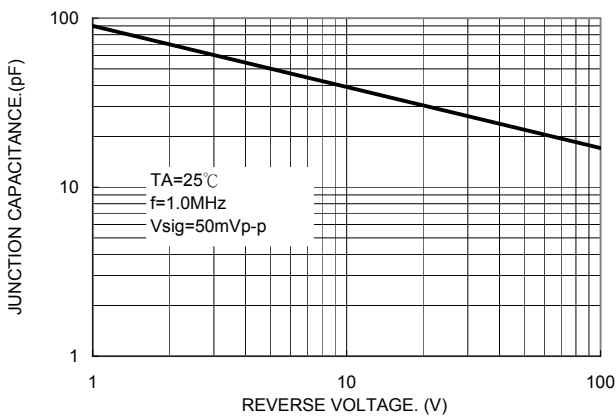


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

