





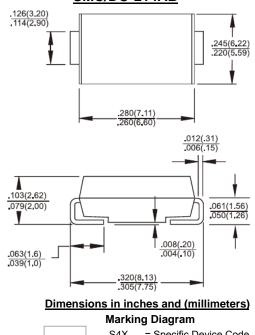
#### **Features**

- ♦ 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.

### 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

# S4A - S4M 4.0 AMPS. Surface Mount Rectifiers SMC/DO-214AB





## **Maximum Ratings and Electrical Characteristics**

Rating at 25  $^\circ\!{\rm C}$  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 <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T_t=75 $^\circ\!$	I <sub>F(AV)</sub>	4							А
Peak Forward Surge Current, 8.3 ms Single Half Sine- wave Superimposed on Rated Load (JEDEC method)	I <sub>FSM</sub>	100							А
Maximum Instantaneous Forward Voltage (Note 1) @ 4 A	V <sub>F</sub>	1.15						V	
Maximum DC Reverse Current@ T $_A$ =25 °Cat Rated DC Blocking Voltage@ T $_A$ =125 °C	I <sub>R</sub>	10 250							uA uA
Typical Reverse Recovery Time (Note 2)	Trr	1.5						uS	
Typical Junction Capacitance (Note 3)	Cj	60						pF	
Typical Thermal Resistance	R <sub>θJL</sub> R <sub>θJA</sub>	13 47						<sup>o</sup> C/W	
Operating Temperature Range	TJ	- 55 to + 150							°C
Storage Temperature Range	T <sub>STG</sub>	- 55 to + 150						°C	

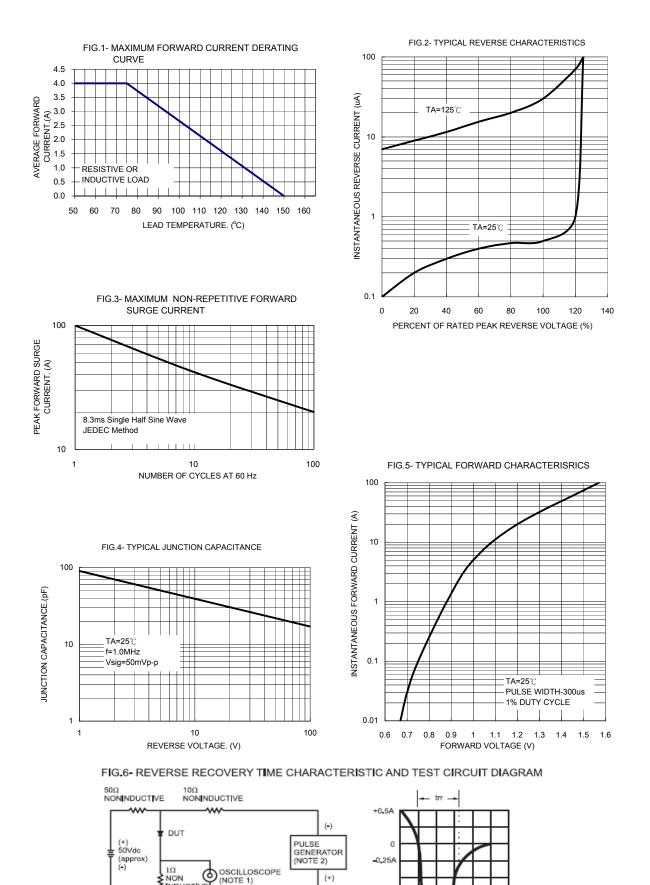
Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle

2. Reverse Recovery Test Conditions: I F=0.5A, IR=1.0A, IRR=0.25A

3. Measured at 1 MHz and Applied V  $_{\text{R}}\text{=}4.0$  Volts



### RATINGS AND CHARACTERISTIC CURVES (S4A THRU S4M)



-1.0A

1cm

SET TIME BASE FOR 5/ 10ns/ cm

NDUCTIVE

NOTES: 1. Rise Time=7ns max. Input Impedance= 1 megohm 22pf 2. Rise Time=10ns max. Sourse Impedance= 50 ohms