



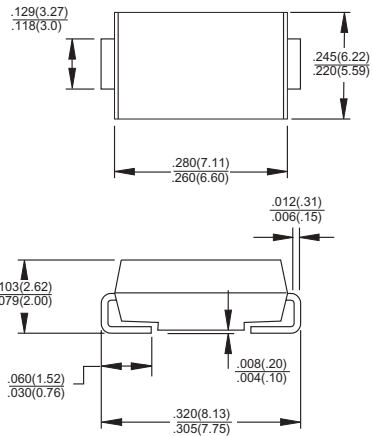
S4A THRU S4M

4.0 AMPS. Surface Mount Rectifiers



Voltage Range
50 to 1000 Volts
Current
4.0 Amperes

SMC/DO-214AB



Dimensions in inches and (millimeters)

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: 250°C / 10 seconds at terminals

Mechanical Data

- ✧ Case: Molded plastic
- ✧ Terminals: Solder plated
- ✧ Polarity: Indicated by cathode band
- ✧ Packaging: 16mm tape per EIA STD RS-481
- ✧ Weight: 0.21 gram

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	S4A	S4B	S4D	S4G	S4J	S4K	S4M	Units
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @ T _L = 75°C	43.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	100							A
Maximum Instantaneous Forward Voltage @ 4.0A	1.15							V
Maximum DC Reverse Current @ T _A = 25°C at Rated DC Blocking Voltage @ T _A = 125°C	10.0 250							uA uA
Typical Thermal Resistance (Note 3) R _{θJL} R _{θJA}	13 47							°C/W
Maximum Reverse Recovery Time (Note 1)	2.5							uS
Typical Junction Capacitance (Note 2)	60							pF
Operating Temperature Range T _J	-55 to +150							°C
Storage Temperature Range T _{STG}	-55 to +150							°C

Notes: 1. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

2. Measured at 1 MHz and Applied V_R=4.0 Volts

3. Measured on P.C. Board with 0.3 x 0.3" (8x 8mm) Copper Pad Areas.

RATINGS AND CHARACTERISTIC CURVES (S4A THRU S4M)

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

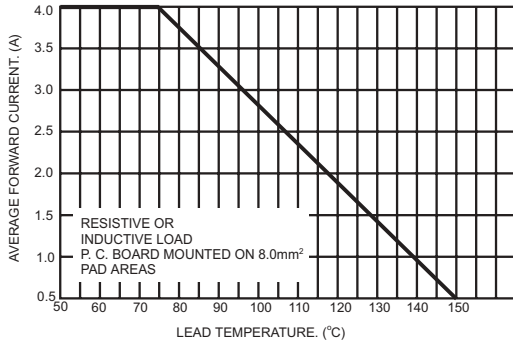


FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

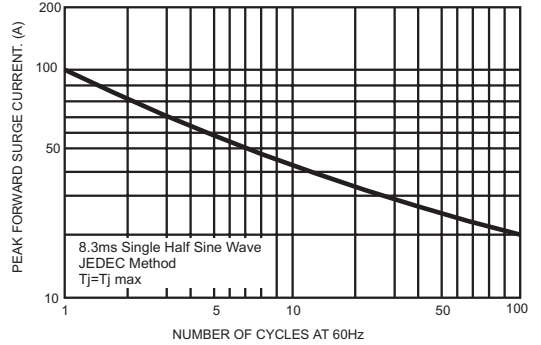


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

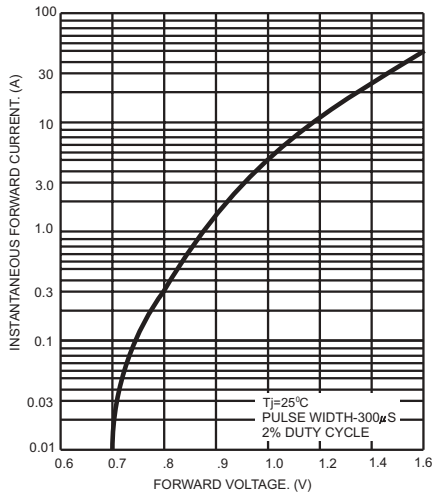


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

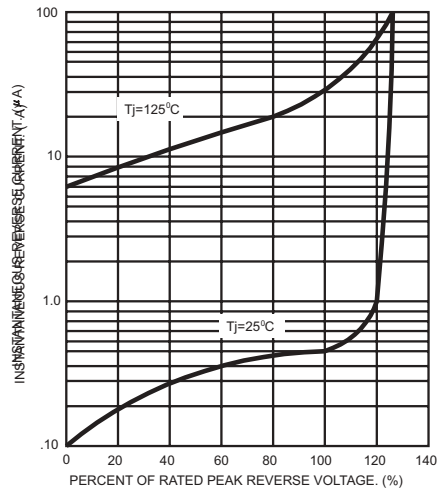


FIG. 5- TYPICAL JUNCTION CAPACITANCE

