



# S6A THRU S6M

## 6.0 AMPS. Surface Mount Rectifiers



Voltage Range  
50 to 1000 Volts  
Current  
6.0Amperes

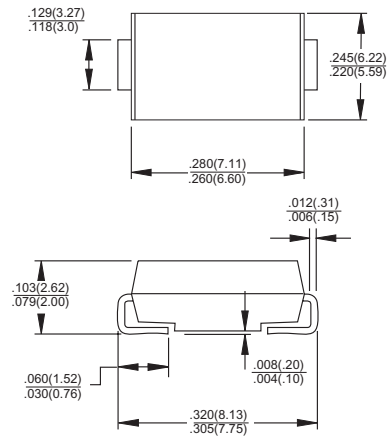
### Features

- ✧ 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

### 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

### SMC / DO-214AB



Dimensions in inches and (millimeters)

### 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	S6A	S6B	S6D	S6G	S6J	S6K	S6M	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 .375 (9.5mm) Lead Length @ $T_L = 75^\circ C$	$I_{(AV)}$	6.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	250							A
Maximum Instantaneous Forward Voltage @ 6.0A	$V_F$	1.15							V
Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=100^\circ C$	$I_R$	10 400							$\mu A$ $\mu A$
Typical Junction Capacitance ( Note 1 )	$C_j$	100							pF
Typical Thermal Resistance ( Note 2 )	$R\theta_{JA}$	10							$^\circ C/W$
Operating Temperature Range	$T_J$	-65 to +125							$^\circ C$
Storage Temperature Range	$T_{STG}$	-65 to +150							$^\circ C$

Notes: 1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

2. Measured on P.C. Board with 0.6 x 0.6" (16 x 16mm) Copper Pad Areas.

## RATINGS AND CHARACTERISTIC CURVES (S6A THRU S6M)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

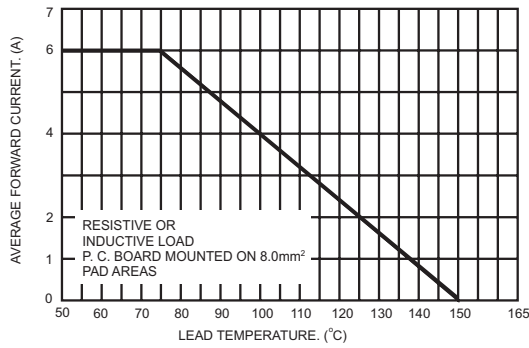


FIG.2- TYPICAL FORWARD CHARACTERISTICS

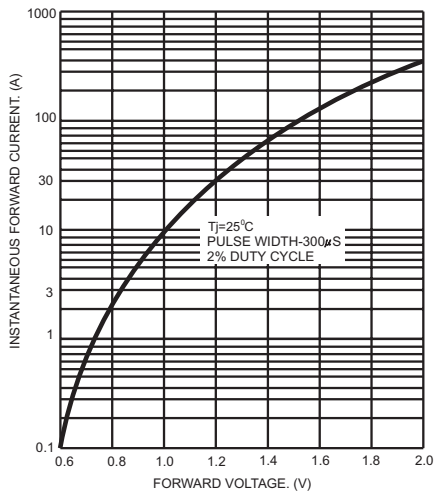


FIG.3- TYPICAL REVERSE CHARACTERISTICS

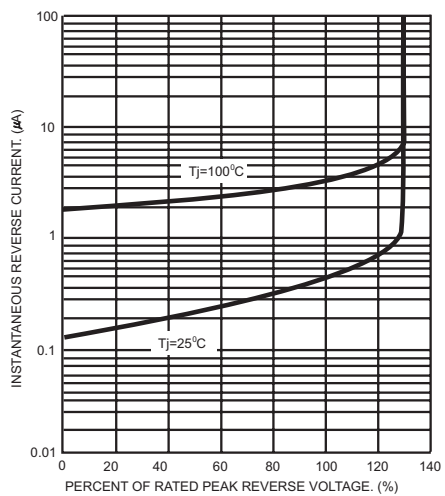


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

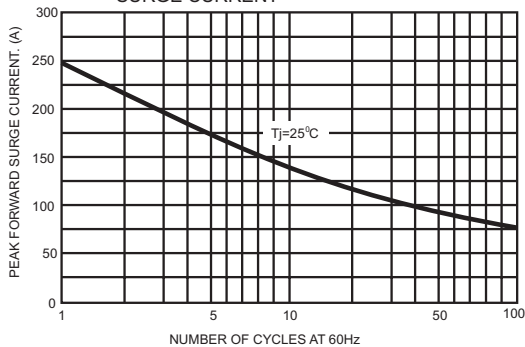


FIG.5- TYPICAL JUNCTION CAPACITANCE

