

# S5AC-S5MC

Surface Mount Rectifiers

**REVERSE VOLTAGE: 50 — 1000 V**

**CURRENT: 5.0 A**



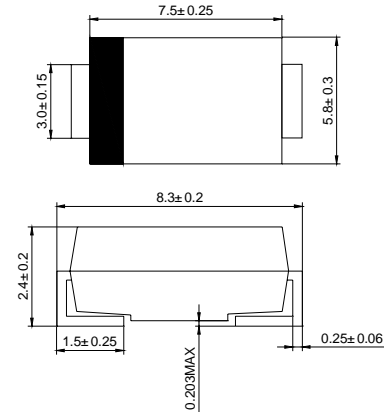
## Features

- ◇ Plastic package has underwriters laboratory flammability classification 94V-0
- ◇ For surface mounted applications
- ◇ Low profile package
- ◇ Built-in strain relief, ideal for automated placement
- ◇ High temperature soldering:  
250°C/10 seconds at terminals

## Mechanical Data

- ◇ Case: JEDEC DO-214AB, molded plastic over passivated chip
- ◇ Polarity: Color band denotes cathode end
- ◇ Weight: 0.007 ounces, 0.21 gram

## DO - 214AB(SMC)



Dimensions in millimeters

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

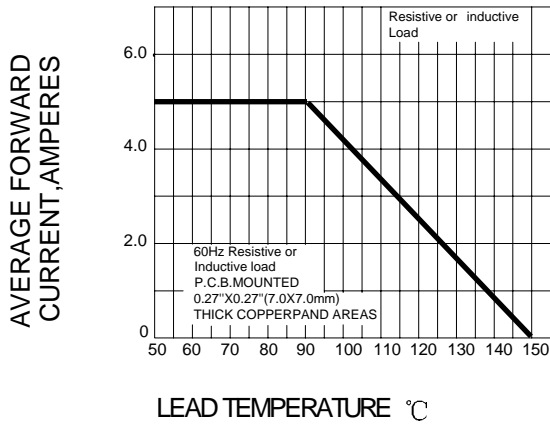
		S5AC	S5BC	S5DC	S5GC	S5JC	S5KC	S5MC	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RWS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current @ $T_A = 90^\circ\text{C}$	$I_{F(AV)}$	5.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	150							A
Maximum Instantaneous forward voltage at 5.0 A	$V_F$	1.15							V
Maximum DC reverse current @ $T_A = 25^\circ\text{C}$ at rated DC blocking voltage @ $T_A = 125^\circ\text{C}$	$I_R$	10 250							$\mu\text{A}$
Typical junction capacitance	$C_J$	35							pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	40							$^\circ\text{C/W}$
Operating junction and storage temperature range	$T_J T_{STG}$	-55-----+150							$^\circ\text{C}$

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

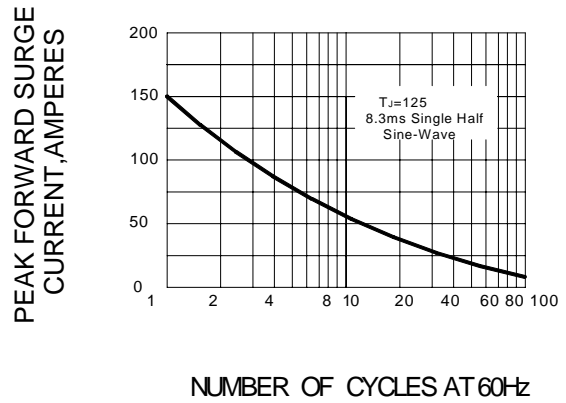
2. Thermal resistance from junction to ambient and junction to lead P.C.B. mounted on 0.27"X0.27"(7.0X7.0mm<sup>2</sup>) copper pad areas

## Ratings AND Characteristic Curves

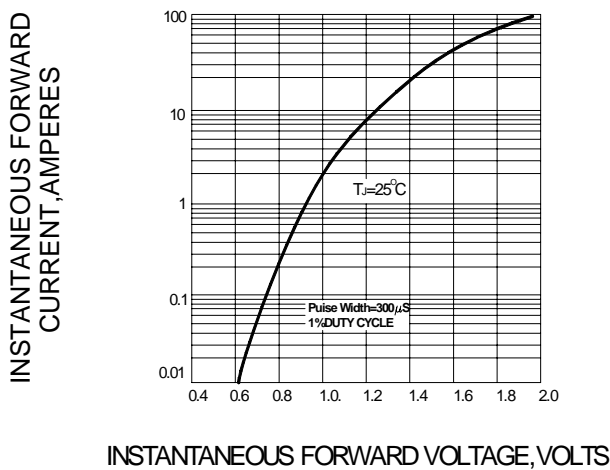
**FIG.1 – FORWARD DERATING CURVE**



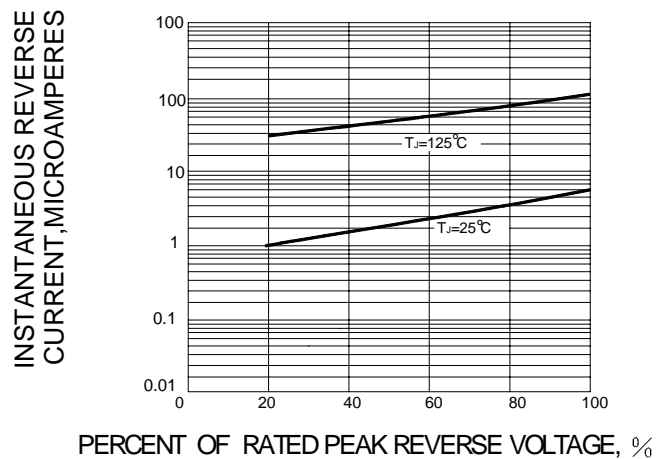
**FIG.2 PEAK FORWARD SURGE CURRENT**



**FIG.3 – TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**



**FIG.5-TYPICAL JUNCTION CAPACITANCE**

