



# RS5A-RS5M

Surface Mount Rectifiers

**REVERSE VOLTAGE: 50 --- 1000 V**

**CURRENT: 5.0 A**

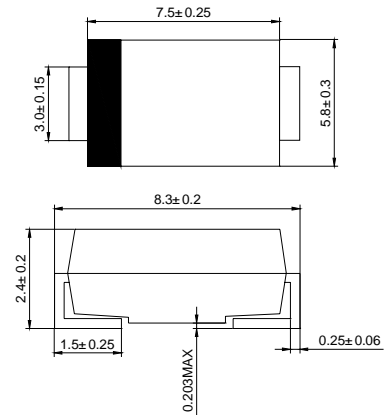
## Features

- ◇ Plastic package has underwriters laborator flammability classification 94V-0
- ◇ For surface mounted applications
- ◇ Low profile package
- ◇ Built-in strain relief, ideal for automated placement
- ◇ Glass passivated chip junction
- ◇ 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

		RS5A	RS5B	RS5D	RS5G	RS5J	RS5K	RS5M	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 at $T_L=90^\circ\text{C}$	$I_{F(AV)}$	5.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	$I_{FSM}$	150							A
Maximum instantaneous forward voltage at 5.0A	$V_F$	1.3							V
Maximum DC reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$	$I_R$	5.0 200							$\mu\text{A}$
Maximum reverse recovery time (NOTE 1)	$t_{rr}$	150			250		500		ns
Typical junction capacitance (NOTE 2)	$C_J$	32							pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	22							$^\circ\text{C/W}$
Operating junction and storage temperature range	$T_J T_{STG}$	-55-----+150							$^\circ\text{C}$

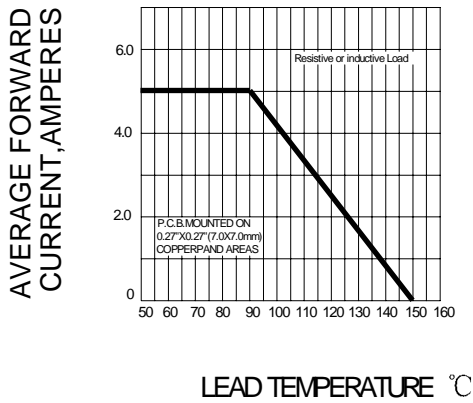
NOTE: 1.Reverse recovery time test conditions: $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$

2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

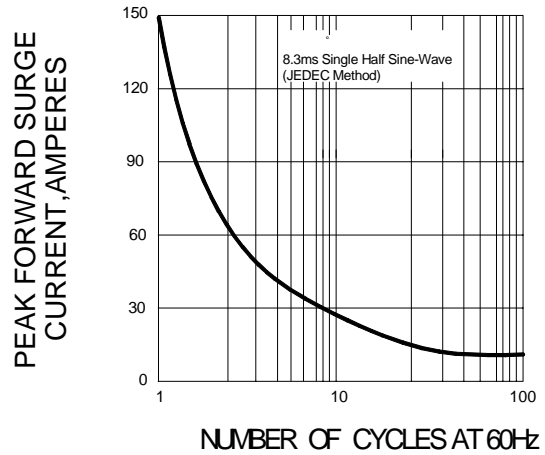
3. Thermal resistance from junction to ambient and junction to lead P.C.B.mounted on 0.2"X0.2"(5.0X5.0mm<sup>2</sup>) copper pad areas

## Ratings AND Characteristic Curves

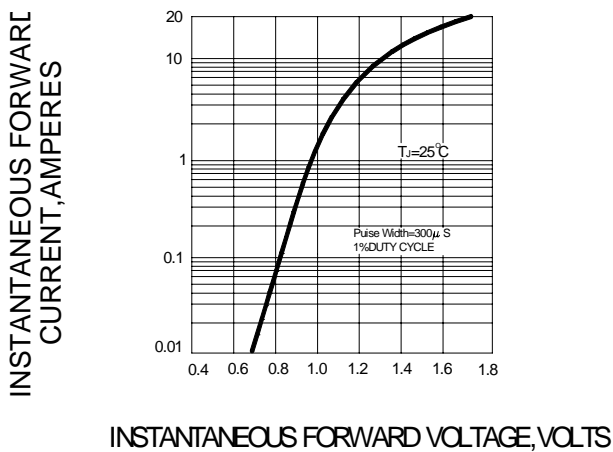
**FIG.1 -- FORWARD DERATING CURVE**



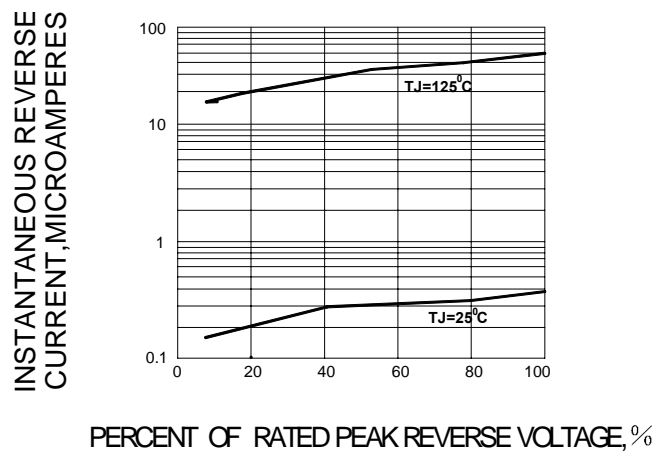
**FIG.2 PEAK FORWARD SURGE CURRENT**



**FIG.3 -- TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 -- TYPICAL REVERSE CHARACTERISTICS**



**FIG.5-TYPICAL JUNCTION CAPACITANCE**

