



# RS5AC-RS5MC

Surface Mount Rectifiers

REVERSE VOLTAGE: 50 — 1000 V

CURRENT: 5.0 A

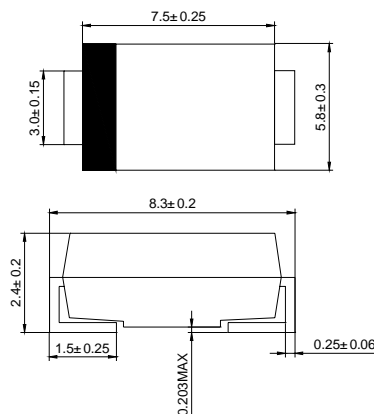
## Features

- ◇ 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

		RS5AC	RS5BC	RS5DC	RS5GC	RS5JC	RS5KC	RS5MC	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 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 blockjing 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 resitance (NOTE 3)	$R_{\theta\text{ JA}}$	22							$^{\circ}\text{C/W}$
Operating junction and storage temperature range	$T_JT_{STG}$	-55-----+150							$^{\circ}\text{C}$

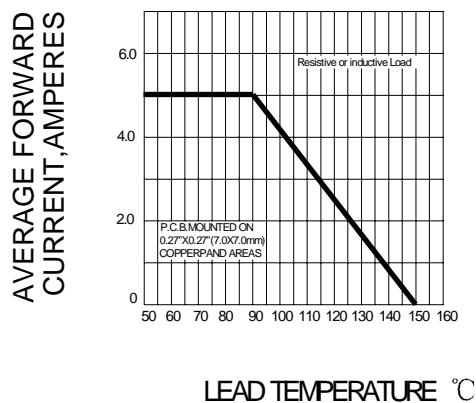
NOTE: 1.Reverse recovery time test conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $t_{rr}=0.25A$

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

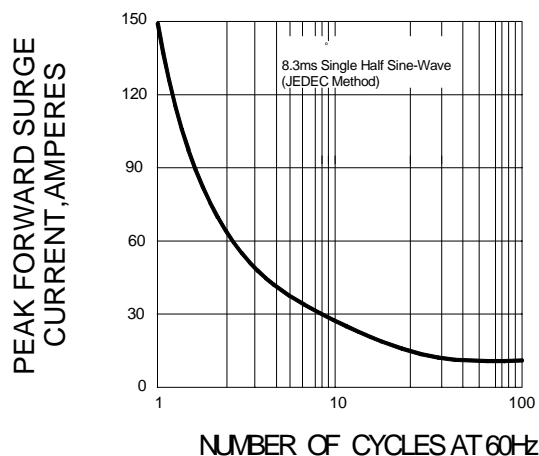
3. Thermal resistance from junction to ambient and junction to lead P.C.B.mounted on 0.2"X0.2"(5.0X5.0mm<sup>2</sup>) copper pad areas

### Ratings AND Characteristic Curves

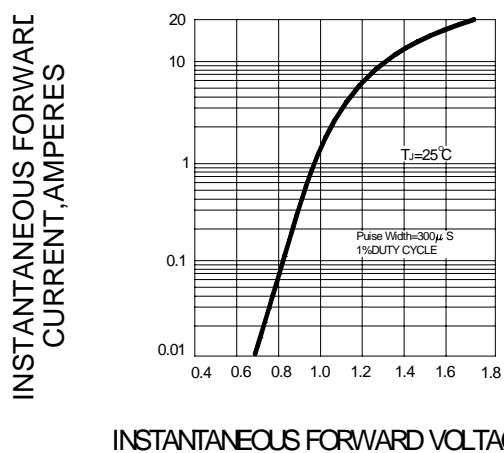
**FIG.1 -- FORWARD DERATING CURVE**



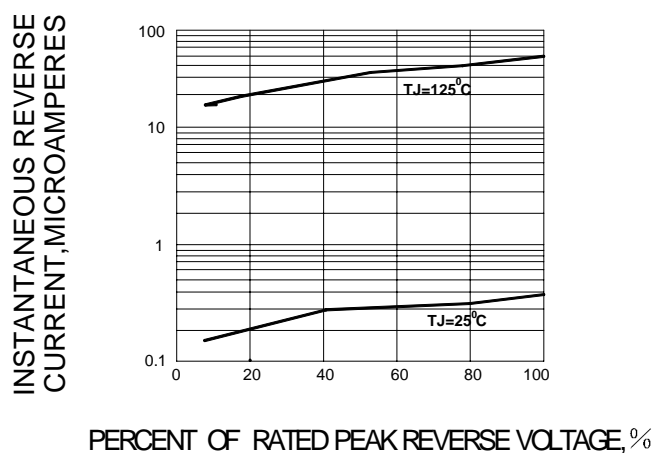
**FIG.2 PEAK FORWARD SURGE CURRENT**



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



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



**FIG.5-TYPICAL JUNCTION CAPACITANCE**

