



## Surface Mount Rectifiers

## RS3AB--RS3MB

### FEATURES

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



Lead-free



### MECHANICAL DATA

- Case :JEDEC SMB, molded plastic over passivated chip
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: color band denotes cathode end
- Weight: 0.003 ounces, 0.093 gram

### Maximum Ratings (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	RS3AB	RS3BB	RS3DB	RS3GB	RS3JB	RS3KB	RS3MB	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 $T_L=90^\circ\text{C}$	$I_{F(AV)}$	3.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	$I_{FSM}$	100							A

### Thermal Characteristics

Characteristic	Symbol	RS3AB	RS3BB	RS3DB	RS3GB	RS3JB	RS3KB	RS3MB	UNITS
Typical junction capacitance (Note2)	$C_J$	32							p F
Typical thermal resistance (Note3)	$R_{\theta JA}$	40.0							°C/W
Operating junction and storage temperature range	$T_J T_{STG}$	- 55 ----- + 150							°C

### Electrical Characteristics (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	RS3AB	RS3BB	RS3DB	RS3GB	RS3JB	RS3KB	RS3MB	UNITS
Maximum instantaneous forward voltage at 3.0 A	$V_F$	1.30							V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$	$I_R$	5.0 200							$\mu\text{A}$
Typical reverse recovery time (Note1)	$t_{rr}$	150			250		500		ns

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

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

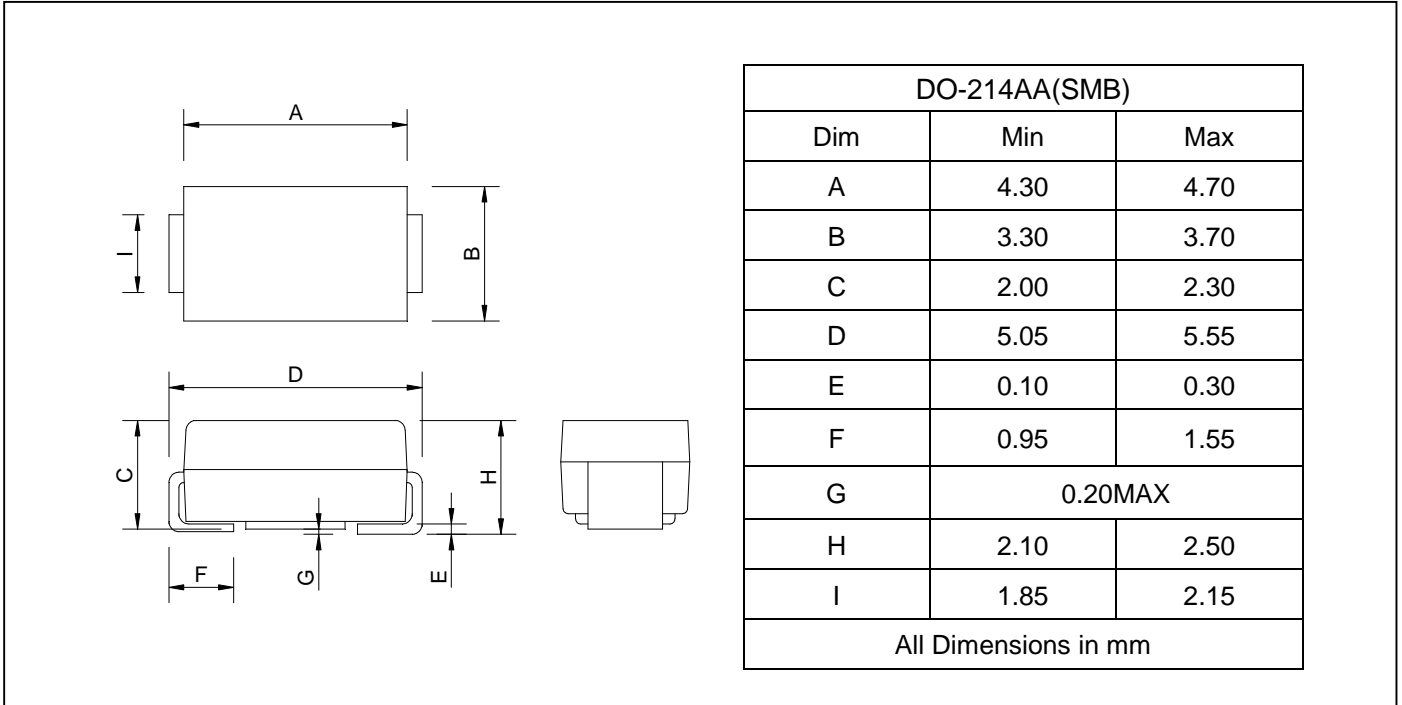
3. Thermal resistance from junction to ambient and junction to lead P.C.B. mounted on 0.2"X0.2"(5.0X5.0mm<sup>2</sup>) copper pad areas



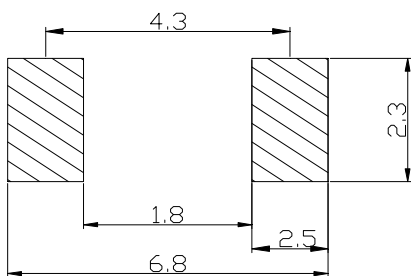
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**PACKAGE OUTLINE DIMENSIONS**



**SOLDERING FOOTPRINT**



Unit : mm

**PACKAGE INFORMATION**

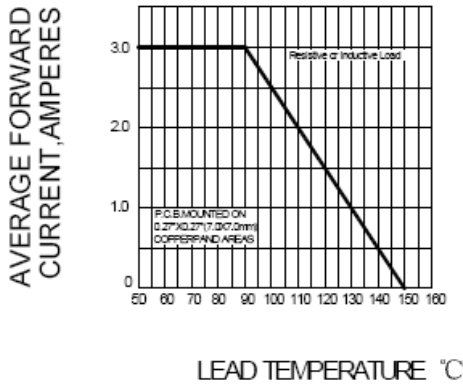
Device	Package	Shipping
RS3AB--RS3MB	DO-214AA(SMB)	3000/Tape&Reel



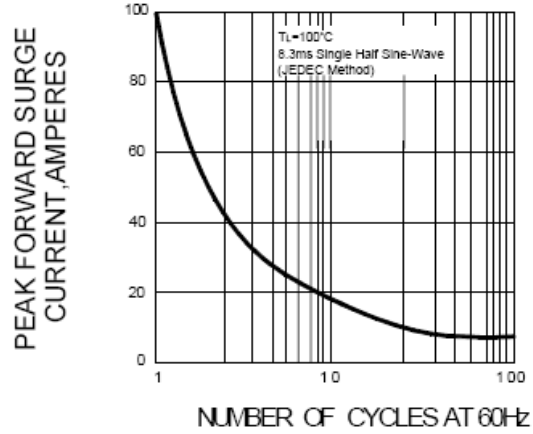
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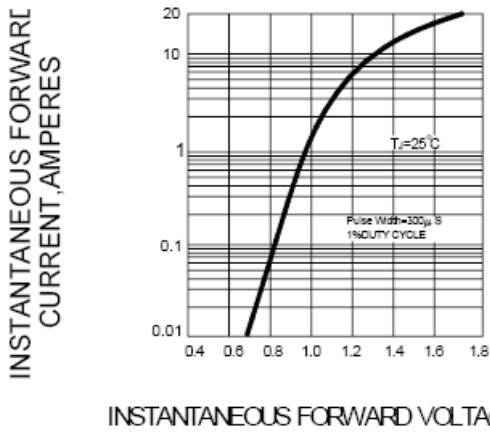
**FIG.1 -- FORWARD DERATING CURVE**



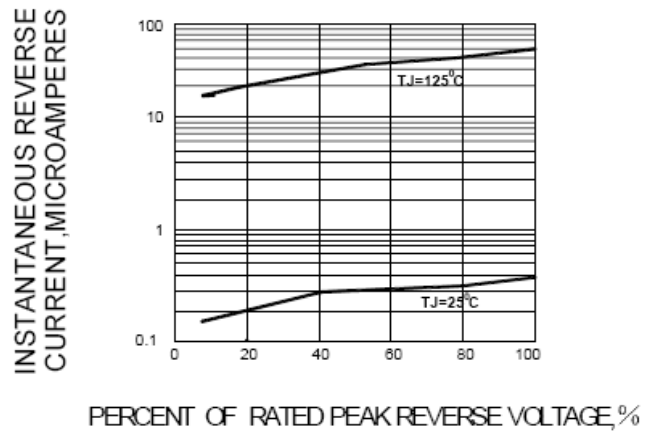
**FIG.2 PEAK FORWARD SURGE CURRENT**



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



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



**FIG.5-TYPICAL JUNCTION CAPACITANCE**

