

## Surface Mount Rectifiers

## RS2A--RS2M

### 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 SMA, 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	RS2A	RS2B	RS2D	RS2G	RS2J	RS2K	RS2M	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 $T_L=90^\circ\text{C}$	$I_{F(AV)}$	2.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	$I_{FSM}$	50							A

### Thermal Characteristics

Characteristic	Symbol	RS2A	RS2B	RS2D	RS2G	RS2J	RS2K	RS2M	UNITS
Typical junction capacitance (Note2)	$C_J$	18							pF
Typical thermal resistance (Note3)	$R_{\theta JA}$ $R_{\theta JL}$	40 15							°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	RS2A	RS2B	RS2D	RS2G	RS2J	RS2K	RS2M	UNITS
Maximum instantaneous forward voltage at 2.0 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



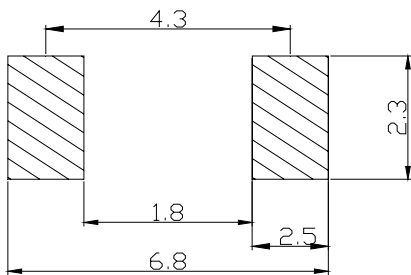
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**PACKAGE OUTLINE DIMENSIONS**

DO-214AA(SMB)		
Dim	Min	Max
A	4.30	4.70
B	3.30	3.70
C	2.00	2.30
D	5.05	5.55
E	0.10	0.30
F	0.95	1.55
G	0.20MAX	
H	2.10	2.50
I	1.85	2.15
All Dimensions in mm		

**SOLDERING FOOTPRINT**



Unit : mm

**PACKAGE INFORMATION**

Device	Package	Shipping
RS2A--RS2M	DO-214AA(SMB)	3000/Tape&Reel



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# RS2A--RS2M

FIG.1 – FORWARD DERATING CURVE

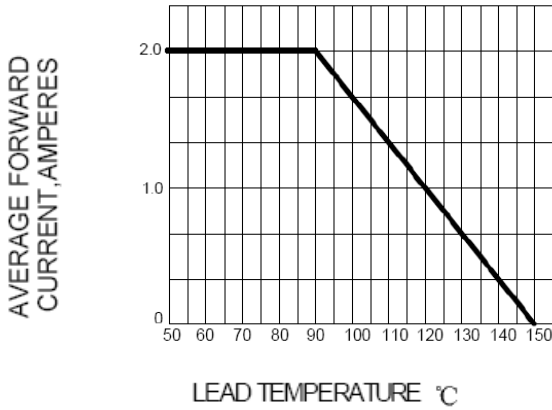


FIG.2 PEAK FORWARD SURGE CURRENT

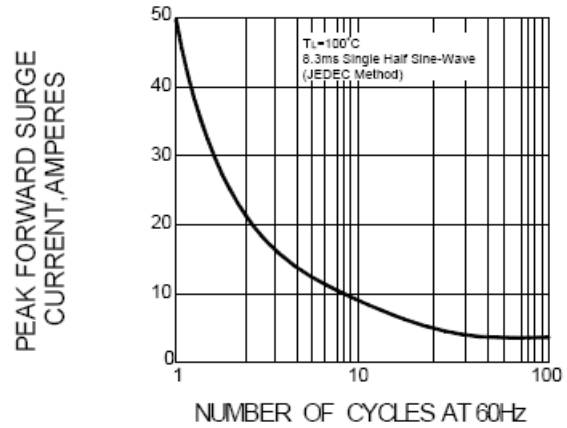


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

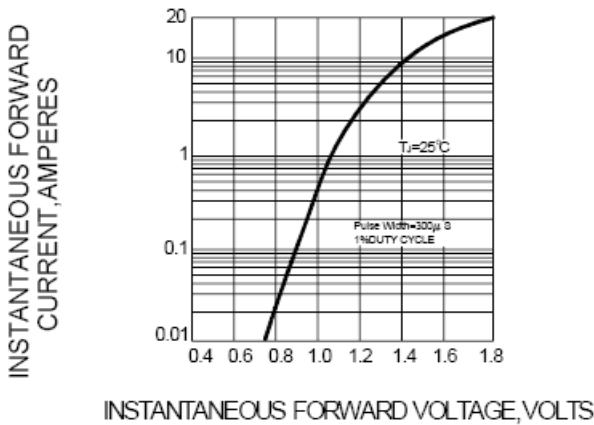


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

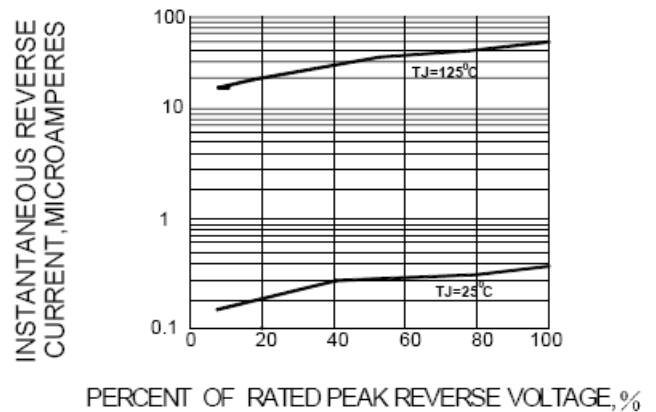


FIG.5 TYPICAL JUNCTION CAPACITANCE

