



## SURFACE MOUNT FAST RECOVERY RECTIFIER

**RS2A THRU RS2M**

**VOLTAGE RANGE  
CURRENT**

**50 to 1000 Volts  
1.5 Ampere**

### FEATURES

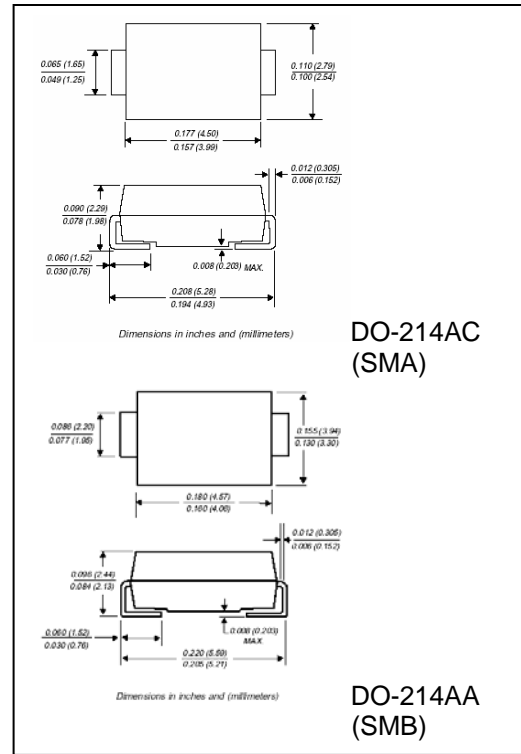
- Glass passivated chip junction
- Built in strain relief
- Fast switching speed for high efficiency
- High temperature soldering guaranteed:  
250°C / 10 seconds at terminals
- Also available in the SMA package, add suffix “A”,  
i.e. RS2AA

### MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Solder plated, solderable per MIL-STD-750  
method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.002 ounce, 0.064 gram – DO-214AC (SMA)  
0.003 ounce, 0.093 gram – DO-214AA (SMB)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%



	SYMBOLS	RS2A	RS2B	RS2D	RS2G	RS2J	RS2K	RS2M	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current, At $T_L = 100^\circ\text{C}$	$I_{(AV)}$	1.5							Amps
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	$I_{FSM}$	50							Amps
Maximum Instantaneous Forward Voltage @ 1.5A	$V_F$	1.3							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	$I_R$	5.0							$\mu\text{A}$
Test conditions $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$		200							
Maximum Reverse Recovery Time Test conditions $I_F = 0.5\text{A}$ , $I_R = 1.0\text{A}$ , $I_{RR} = 0.25\text{A}$	$t_{rr}$	150				250	500		nS
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)	$C_j$	50							pF
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	105 (SMA) 55 (SMB)							$^\circ\text{C/W}$
	$R_{\theta JL}$	32 (SMA) 18 (SMB)							
Operating Junction Temperature Range	$T_J$	(-55 to +150)							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	(-55 to +150)							$^\circ\text{C}$

### Notes:

1. Thermal resistance from junction to ambient and from junction to lead mounted on PCB with 0.27" x 0.27" (7.0mm x 7.0mm) copper pad areas for SMB or 0.2" x 0.2" (5.0mm x 5.0mm) copper pad areas for SMA



## RATINGS AND CHARACTERISTIC CURVES RS2A THRU RS2M

FIG. 1 - FORWARD CURRENT DERATING CURVE

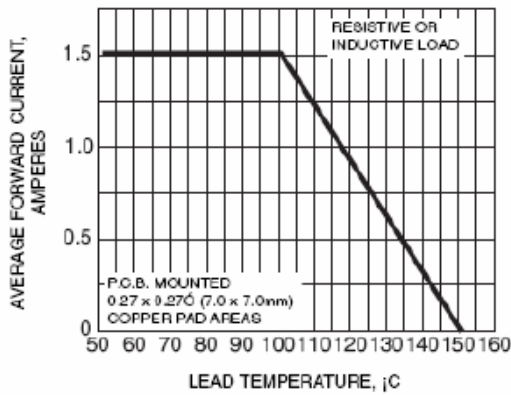


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

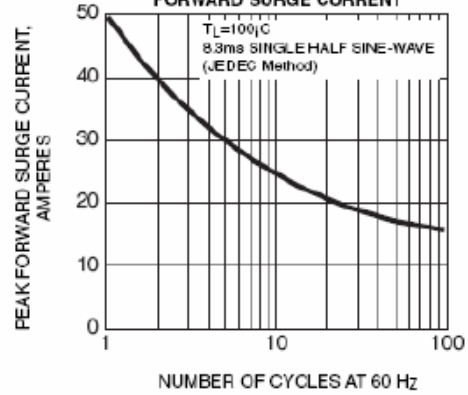


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

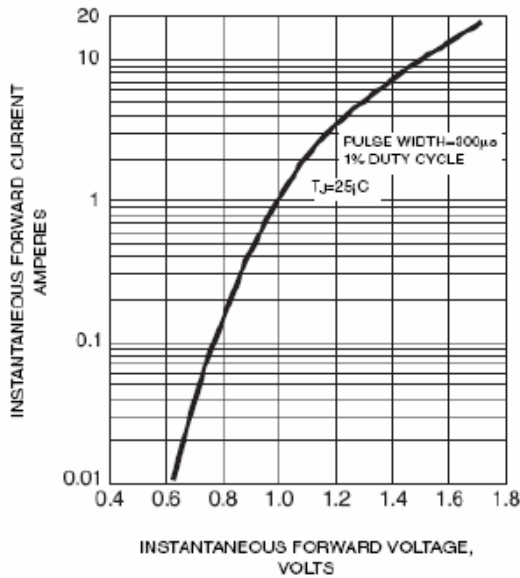


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

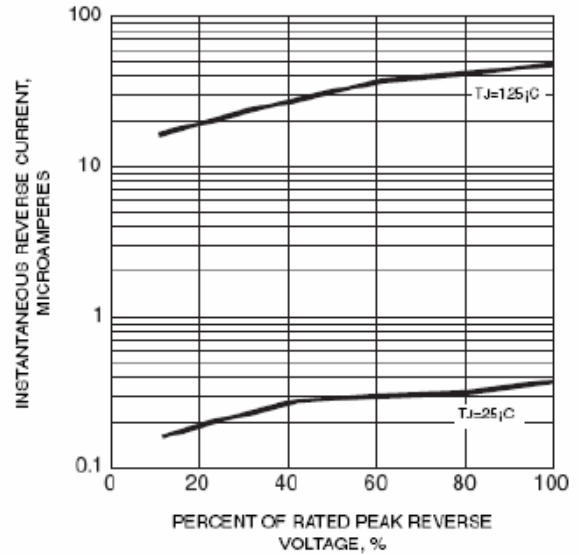


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

