

## RS3AGB THRU RS3MGB

### 3.0AMPS.FAST RECOVERY SURFACE MOUNT RECTIFIERS

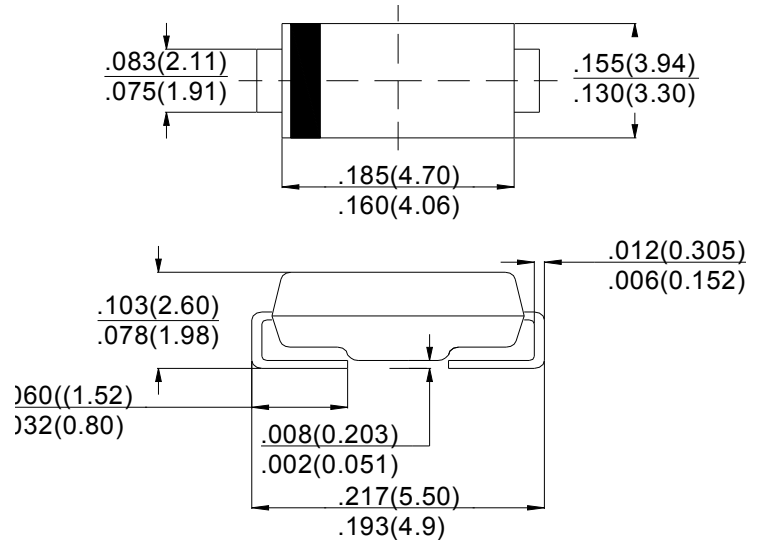
#### FEATURE

- . Fast switching
- . High current capability
- . Low forward voltage drop
- . Low power loss, high efficiency
- . High surge capability
- . High temperature soldering guaranteed:  
260°C/10 seconds at terminals.
- . For surface mounted application.
- . Easy pick and place.

#### MECHANICAL DATA

- . Case: Molded plastic
- . Epoxy: UL94V-0 rate flame retardant
- . Lead: MIL-STD- 202E, Method 208 guaranteed
- . Polarity:Color band denotes cathode end
- . Packaging:12mm tape per EIA STD RS-481
- . Mounting position: Any

#### SMB (DO-214AA)



Dimensions in inches and (millimeters)

#### 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%

Type Number	SYM BOL	RS3 AGB	RS3 BGB	RS3 DGB	RS3 GGB	RS3 JGB	RS3 KGB	RS3 MGB	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 $T_A=55^\circ\text{C}$	$I_{F(AV)}$	3.0							A
Peak Forward Surge Current 8.3ms single half sine- wave superimposed on rated load (JEDEC method)	$I_{FSM}$	90.0							A
Maximum Forward Voltage at 3.0 A DC	$V_F$	1.3							V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$	$I_R$	5.0 100.0							$\mu\text{A}$
Maximum Reverse Recovery Time (Note 1)	$t_{rr}$	150			250		500		nS
Typical Junction Capacitance (Note 2)	$C_J$	60							pF
Typical Thermal Resistance (Note 3)	$R_{(JA)}$	50							$^\circ\text{C}/\text{W}$
Storage Temperature	$T_{STG}$	-55 to +150							$^\circ\text{C}$
Operation Junction Temperature	$T_J$	-55 to +150							$^\circ\text{C}$

#### Note:

1. Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Measured on P.C.Board with 15.0×15.0×1.6mmCopper Pad Areas.

**RATING AND CHARACTERISTIC CURVES (RS3AGB THRU RS3MGB)**

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

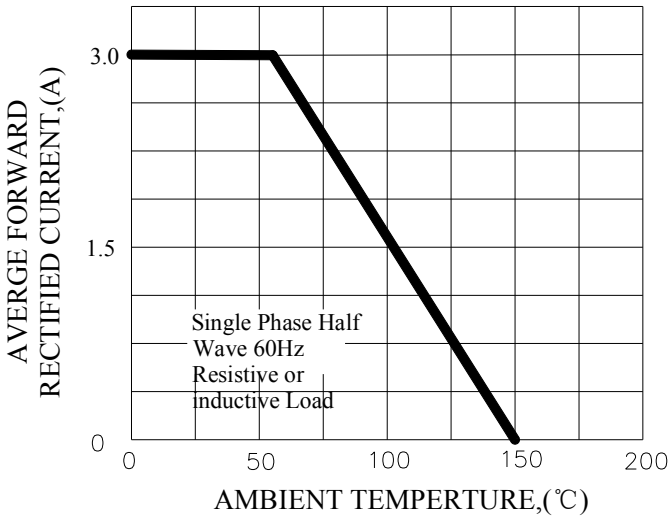


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

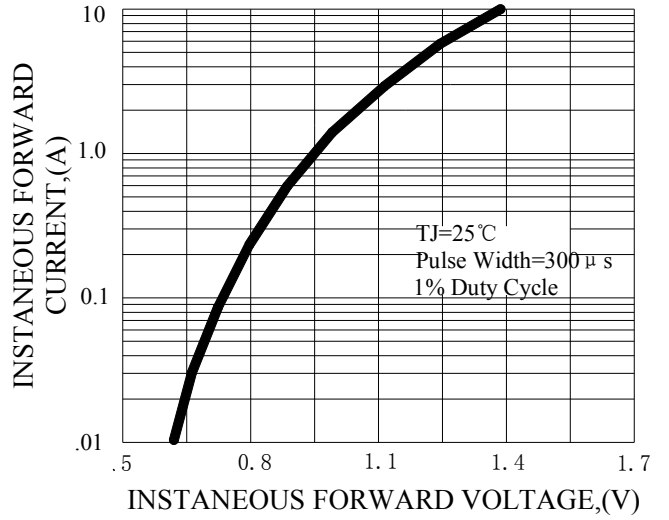


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

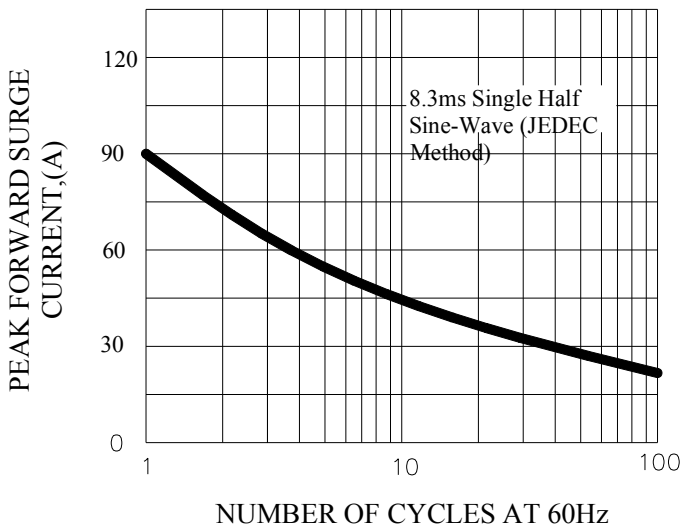


FIG.4-TYPICAL REVERSE CHARACTERISTICS

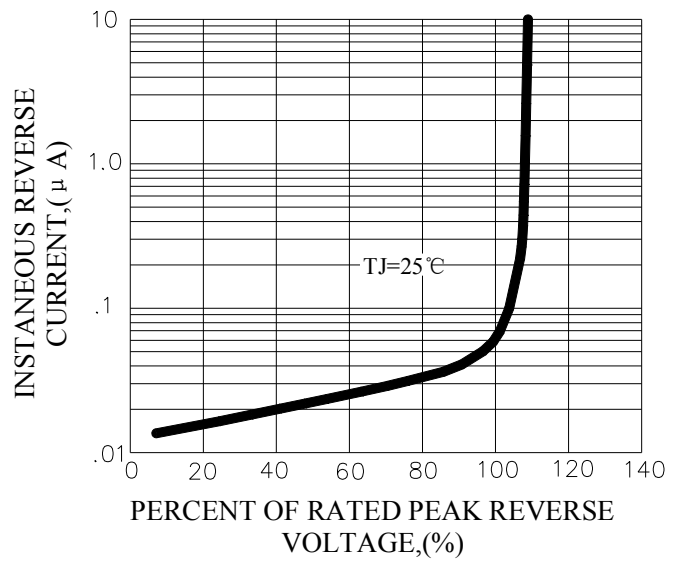


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

