SEMICONDUCTOR

RS3A THRU RS3M

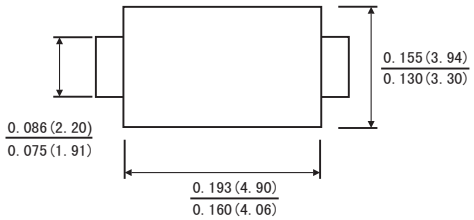
GLASS PASSIVATED FAST RECOVERY RECTIFIER

Reverse Voltage: 50 to 1000 Volts
Forward Current:3. 0Ampere

FEATURES

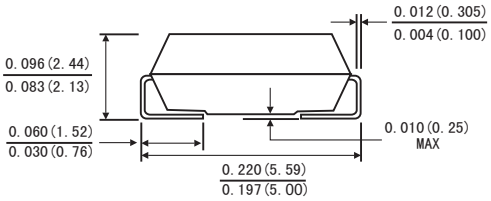
- Glass passivated junction
- For Surface Mount Applications, Easy to pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature soldering guaranteed:260°C/10 seconds at terminals,
- Component in accordance to RoHS 2011/65/EU

SMB(DO-214AA)



MECHANICAL DATA

- Case: JEDEC SMB molded plastic over glass passivated chip
- Terminals: Solder plated
- Polarity: Color band denotes cathode end



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Dimensions in inches and (millimeters)

(Rating 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	RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	Units
Maximum Recurrent 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	$I_{(AV)}$	3. 0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	80.0							Amps
Maximum Instantaneous Forward Voltage at 3 . 0 A	V_F	1.3							Volts
Maximum DC Reverse Current T_A=25°C	I_R	5.0							μA
at rated DC blocking voltage T_A=125°C		200							
Maximum reverse recovery time(Note1)	t_{rr}	150				250	500		ns
Typical junction capacitance(Note2)	C_J	40.0							pF
Operating junction and storage temperature range	T_J T_{STG}	-55 to+150							°C

Note: 1.Test conditions: I_F=0.5A,I_R=1.0A,I_{RR}=0.25A.

2.Measured at 1MHz and applied reverse voltage of 4.0 Volts D.C.

RATINGS AND CHARACTERISTIC CURVES RS3A THRU RS3M

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

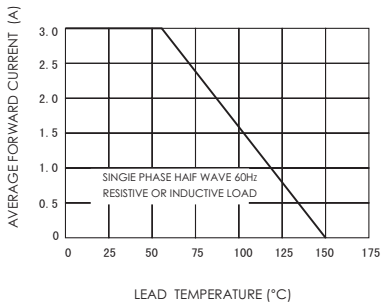


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

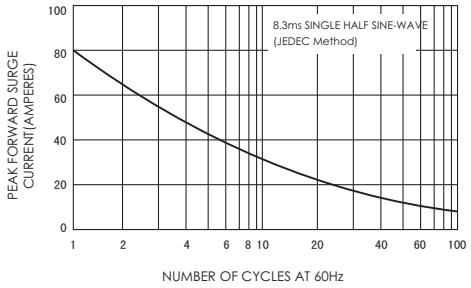


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

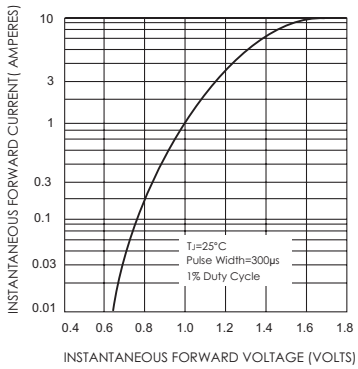


FIG.4-TYPICAL REVERSE CHARACTERISTICS

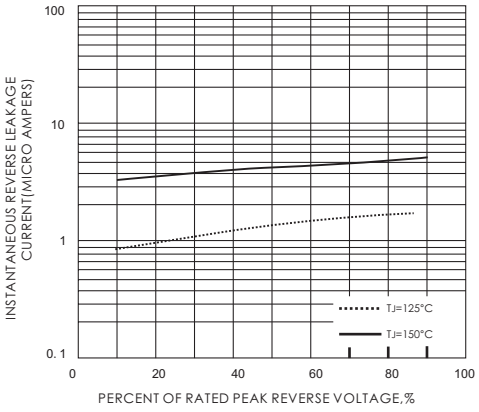


FIG.5-TYPICAL JUNCTION CAPACITANCE

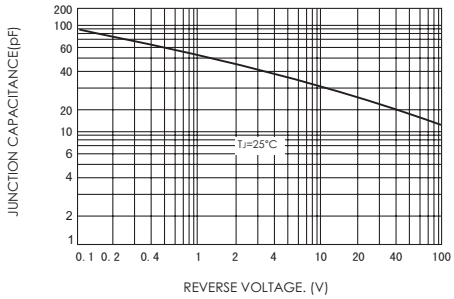
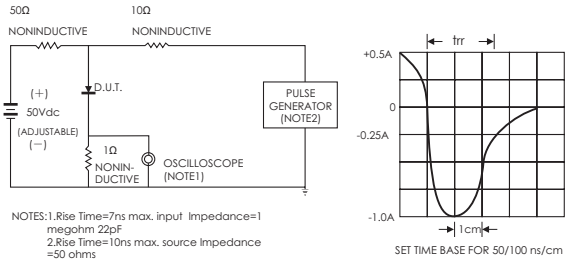


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES:1.Rise Time=7ns max. input Impedance=1 megohm 22pF
2.Rise Time=10ns max. source Impedance =50 ohms