RS3A-RS3M

SUPER FAST RECTIFIERS

VOLTAGE RANGE: 50--- 1000 V
CURRENT: 3.0 A

FEATURES

- The plastic package carries Underwriters Laboratory
- Flammability Classification 94V-0

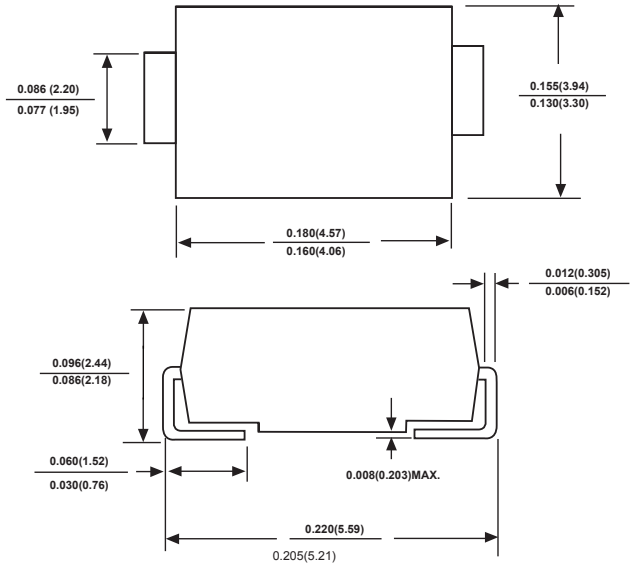
For surface mounted applications

- Fast switching for high efficiency
- Low reverse leakage
- Built-in strain relief,ideal for automated placement High forward surge current capability
- High temperature soldering guaranteed: 250 ℃/ 10 seconds at terminals

MECHANICAL DATA

- Case: JEDEC SMB molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any

SMB



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)Single phase,half wave,60 Hz,resistive or inductive load. For capacitive load,derate by 20%.

	SYMBOLS	RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	UNITS
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=90 C°	$I_{(AV)}$	3.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100.0							Amps
Maximum instantaneous forward voltage at 3.0A	V_F	1.3							Volts
Maximum DC reverse current at rated DC blocking voltage	I_R	T_A=25 C° 5.0 T_A=100 C° 50.0							uA
Maximum reverse recovery time (NOTE 1)	t_{rr}	150				250	500		ns
Typicaljunction capacitance (NOTE 2)	C_J	150.0							pF
Typicaltherm a lresistance (NOTE 3)	$R_{\theta JA}$	20.0							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +150							°C

Note: 1.Reverse recovery condition I_F=0.5A,I_R=1.0A,I_{rr}=0.25A

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

3. P.C.B. mounted with 0.6x0.6"(16x16mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

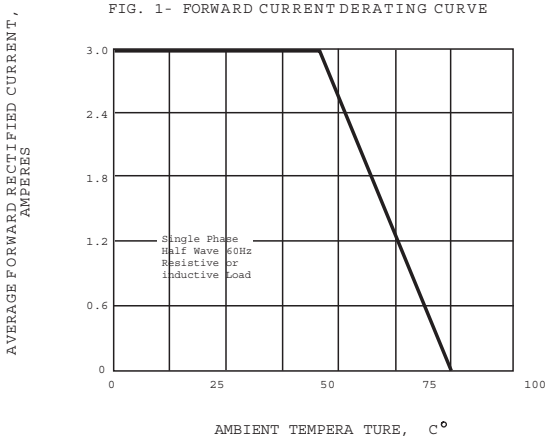


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

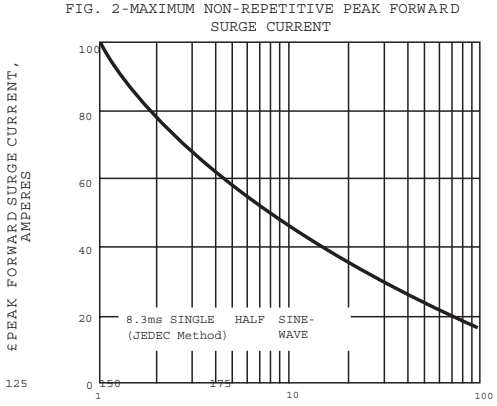


FIG. 3-TYPICAL INSTANTANEOUS FOR WARD CHARACTERISTICS

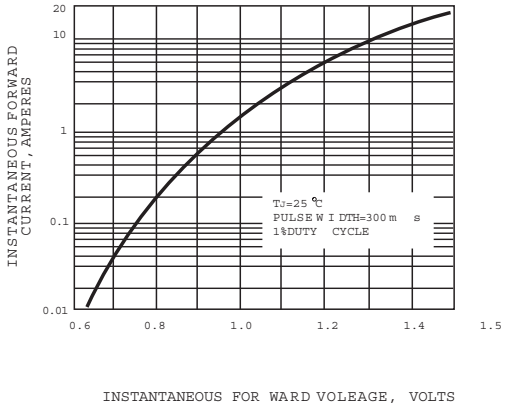


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

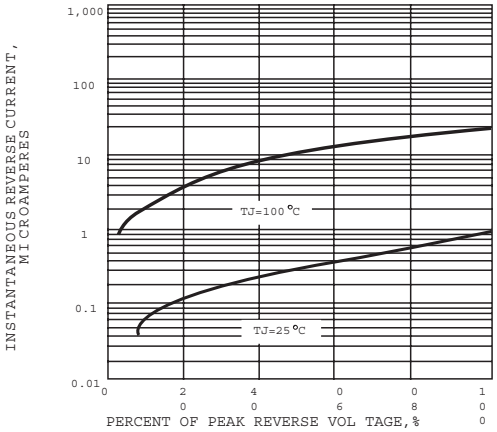


FIG. 5-TYPICAL JUNCTION CAPACITANCE

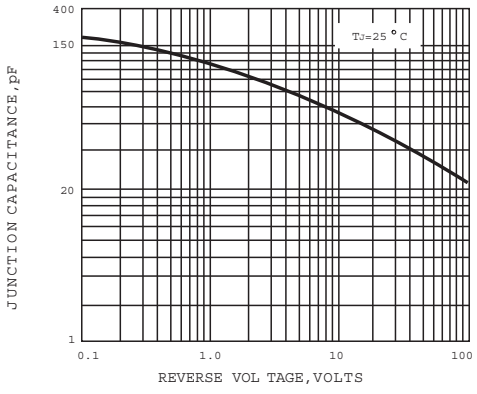


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE