RS1A-RS1M

FAST RECOVERY RECTIFIERS

VOLTAGE RANGE: 50--- 1000 V **CURRENT: 1.0 A**

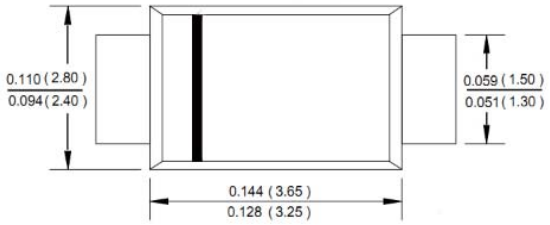
FEATURES

- High surge current capability
- For surface mounted applications
- Built-in strain relief, ideal for automated placement
- Plastic package has underwriters, laborator flammability classification 94V-0
- High temperature soldering: 260oC/10 seconds at terminals

MECHANICAL DATA

- Case :JEDEC SMAF, molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting position: Any

SMAF



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%.

		RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	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	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0							A
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.3							V
Maximum reverse current @T_A=25	I_R	5.0							μA
at rated DC blocking voltage @T_A=100		100.0							
Maximum reverse recovery time (Note1)	t_{rr}	150				250	500		ns
Typical junction capacitance (Note2)	C_J	20							pF
Typical thermal resistance(Note3)	$R_{\theta JA}$	105							℃/W
Operating junction temperature range	T_j	- 55 ---- + 125							℃
Storage temperature range	T_{STG}	- 55 ---- + 150							℃

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.Thermal resistance from junction to lead.

RATINGS AND CHARACTERISTIC CURVES

FIG.1: IO-TA CURVE

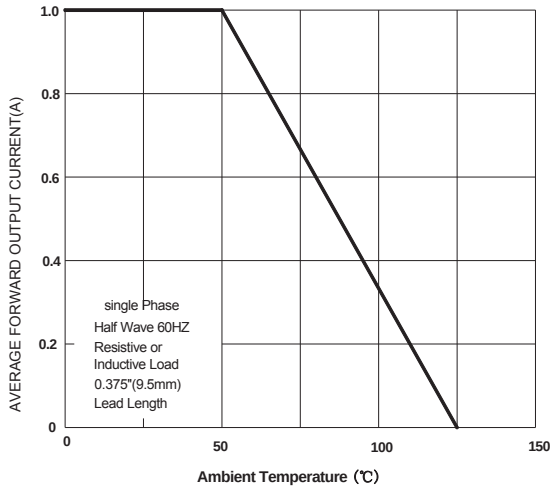


FIG.2: SURGE FORWARD CURRENT CAPABILITY

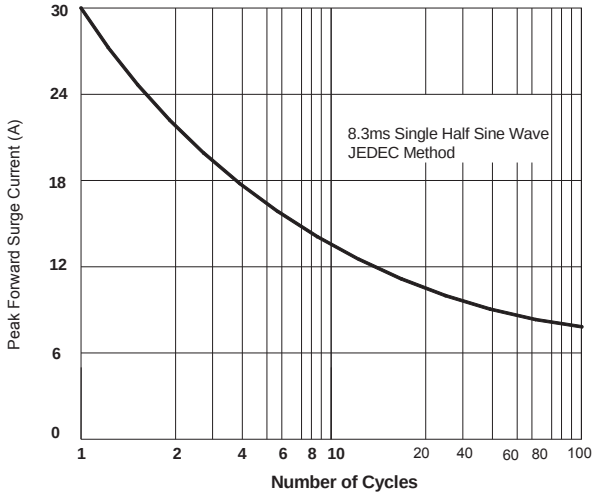


FIG.3: FORWARD VOLTAGE

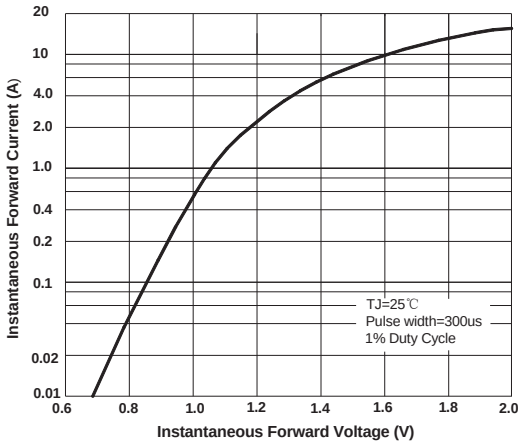


FIG.4: TYPICAL REVERSE CHARACTERISTICS

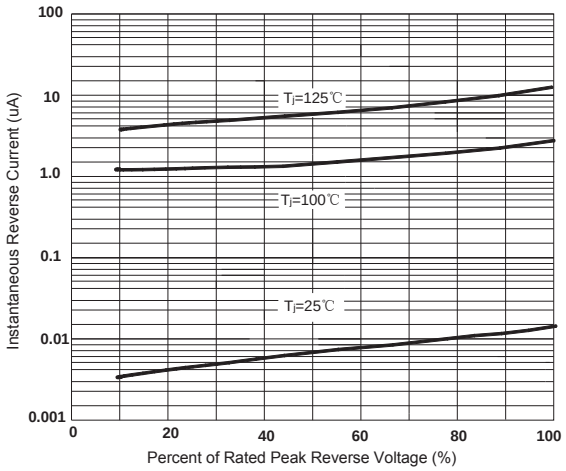


FIG.5: DIAGRAM OF CIRCUIT AND TESTING WAVE FORM OF REVERSE RECOVERY TIME