

RS1A THRU RS1M

VOLTAGE RANGE

50 to 1000 Volts

CURRENT

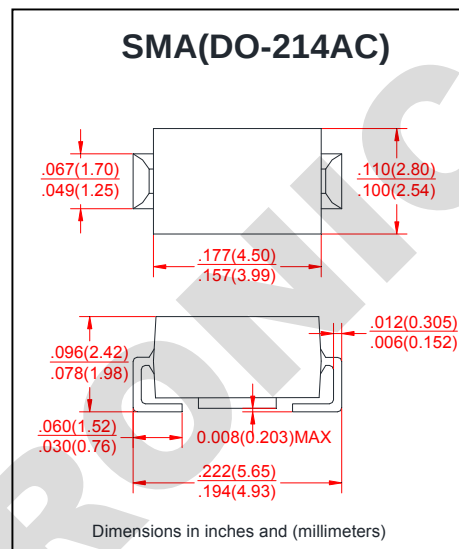
1.0 Ampere

FEATURES

- Fast switching for high efficiency
- Low forward voltage drop
- Low leakage current
- High forward surge capability

MECHANICAL DATA

- Case: SMA mold plastic
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Indicated by cathode band
- Lead: Solder plated, solderable per MIL-STD-750 method 2026
- Mounting position: Any



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	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	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 _A =55°C		I _(AV)	1.0							Amps
Peak Forward Surge Current 8.3mS single half sine-wave superimposed on rated load (JEDEC method)		I _{FSM}	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A		V _F	1.3							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _A = 25°C	I _R	5.0							μA
	T _A = 100°C		100							
Maximum Reverse Recovery Time(NOTE1)		T _{RR}	150				250	500		
Typical Junction Capacitance (NOTE 2)		C _J	20							pF
Typical Thermal Resistance (NOTE 3)		R _{θJA}	55							°C/W
Operating and Storage Temperature Range		T _J , T _{STG}	-55 to +150							°C

Notes:

- 1.Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$.
- 2.Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
- 3.Thermal Resistance from Junction to Ambient at. $8.0 \times 8.0\text{mm}^2$ copper pad areas.

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

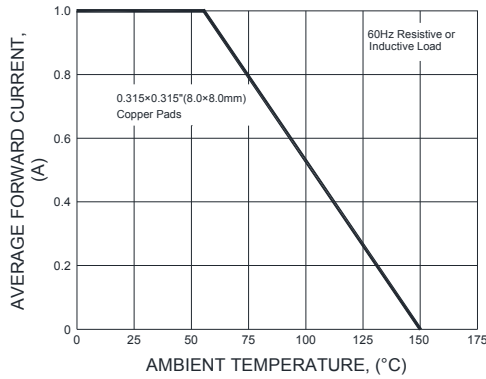


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

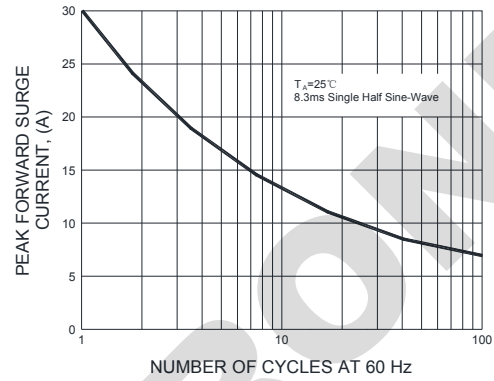


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

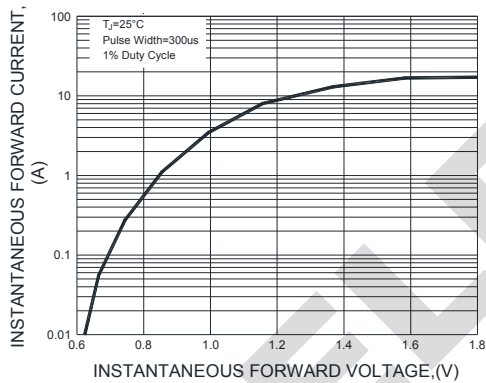


FIG.4-TYPICAL REVERSE CHARACTERISTICS

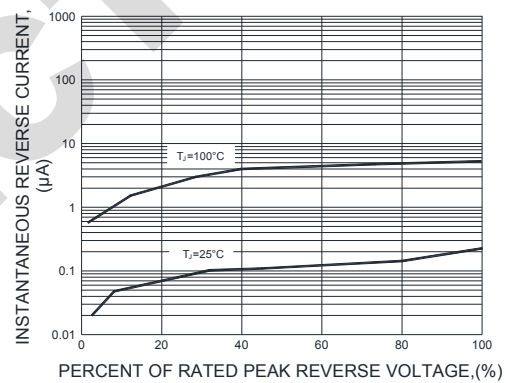


FIG.5-TYPICAL JUNCTION CAPACITANCE

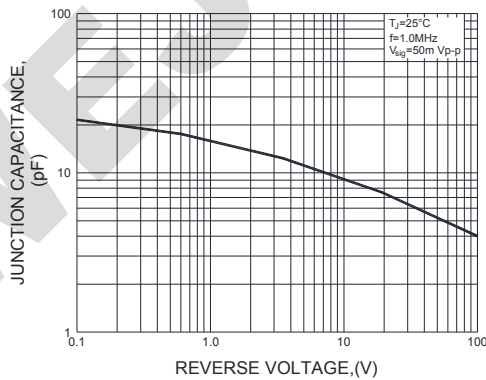


FIG.6-TEST CIRCUIT DIAGRAM AND FORWARD SURGE CURRENT

