

SURFACE MOUNT FAST RECOVERY RECTIFIER

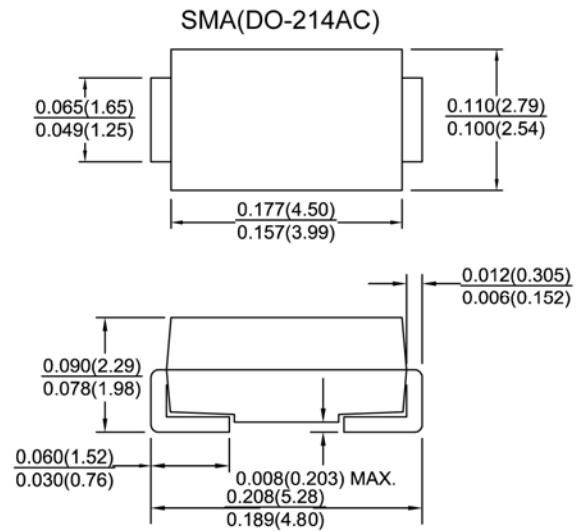
RS1A THRU RS1M 50 to 1000 V 1 A

FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Fast Recovery times for high efficiency
- Plastic package has Underwriters Laboratory
- Flammability Classification 94V-0
- High temperature soldering : 260°C /10 seconds at terminals

MECHANICAL DATA

- Case: Molded plastic, DO-214AC(SMA)
- Terminals: Solder plated, solderable per MIL-STD-750,method 2026 guaranteed
- Polarity: Color band denotes cathode end
- Packaging: 12mm tape per EIA STD RS-481
- Weight: 0.003 ounce, 0.064 gram



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, Resistive or inductive load. For capacitive load, derate current by 20%

Type Number	Symbols	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	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. 375" (9.5mm) Lead Length @ $T_A=55^\circ\text{C}$	$I_{(AV)}$	1.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							Amp
Maximum instantaneous Forward Voltage at @ 1.0A	V_F	1.3							Volts
Maximum Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	I_R	5.0 200							μAmp
Maximum Reverse Recovery Time (Note 1)	TRR	150				250	500		nS
Typical Junction Capacitance (Note 2)	C_J	25							pF
Operating and Storage Temperature Range	T_J T_{STG}	-55 to +150							$^\circ\text{C}$

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
2. Thermal resistance from junction to lead mounted on P.C.B. with 0.3 x 0.3" (8.0 x 8.0mm) copper pad areas
3. Reverse Recovery Test Conditions : $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{RR}=0.25\text{A}$.

RATINGS AND CHARACTERISTIC CURVES (RS1A THRU RS1M)

FIG. 1 -REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

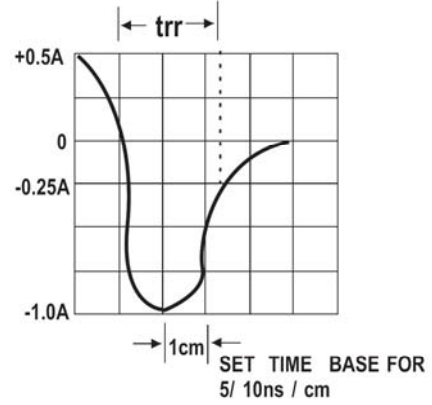
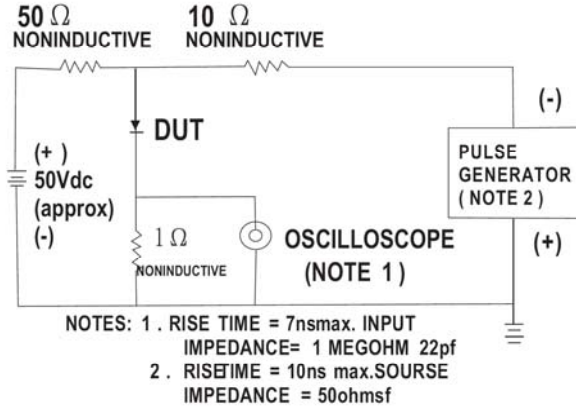


FIG. 2- MAXIMUM FORWARD CURRENT DERATING

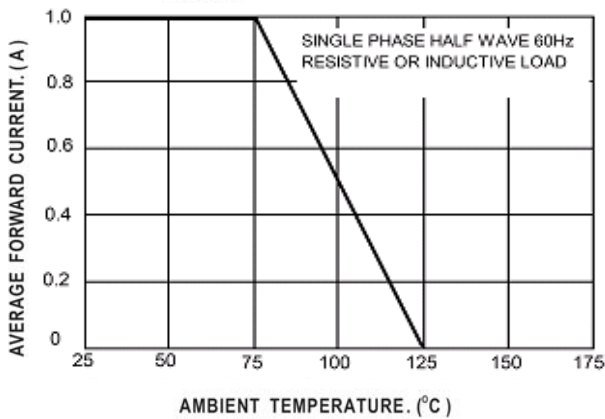


FIG. 3-- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

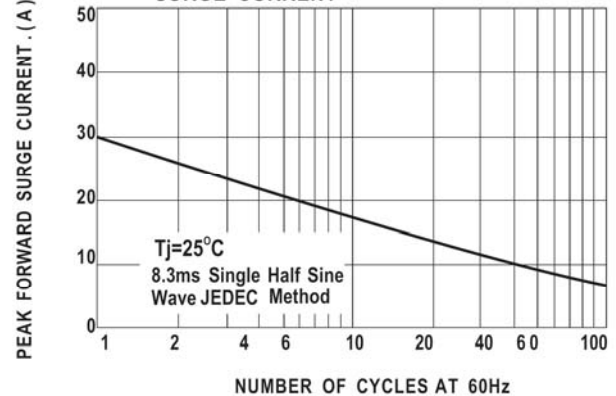


FIG. 4 -TYPICAL FORWARD CHARACTERISTICS

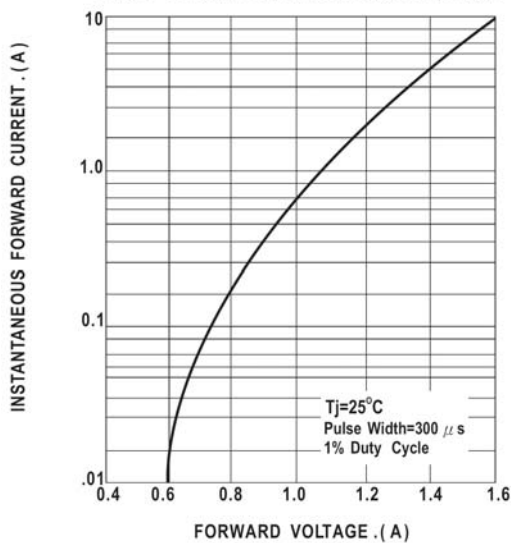


FIG. 5 -TYPICAL JUNCTION CAPACITANCE

