

RS1AA thru RS1MA

SURFACE MOUNT FAST RECOVERY RECTIFIERS

REVERSE VOLTAGE - **50** to **1000** Volts
FORWARD CURRENT - **1.0** Amperes

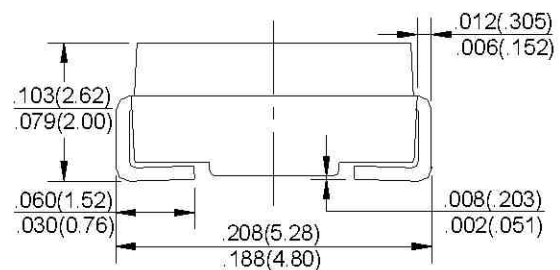
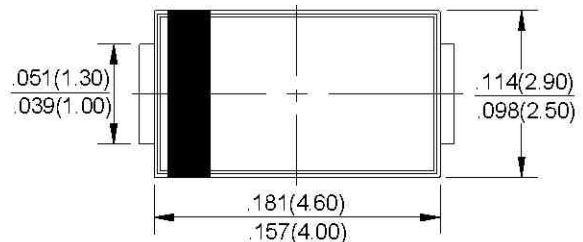
FEATURES

- Fast switching for high efficiency
- Low cost
- Diffused junction
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

MECHANICAL DATA

- Case: Molded Plastic
- Polarity: Indicated by cathode band
- Weight: 0.002 ounces, 0.064 grams
- Mounting position: Any

A-SMA



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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%

CHARACTERISTICS	SYMBOL	RS1AA	RS1BA	RS1DA	RS1GA	RS1JA	RS1KA	RS1MA	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @TA=75 °C	I(AV)	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	IFSM	30							A
Peak Forward Voltage at 1.0A DC	VF	1.3							V
Maximum DC Reverse Current @TJ=25°C	IR	5.0							uA
at Rated DC Blocking Voltage @TJ=100°C		100							
Maximum Reverse Recovery Time (Note 1)	TRR	150				250	500		nS
Tyical Junction Capacitance (Note2)	CJ	25				15			pF
Tyical Thermal Resistance (Note3)	RθJA	25							°C/W
Operating Temperature Range	TJ	-50 to +125							°C
Storage Temperature Range	TSTG	-50 to +150							°C

NOTES: 1. Measured with IF=0.5A, IR=1A, IRR=0.25A

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

3. Thermal resistance junction of ambient.

RATING AND CHARACTERISTIC CURVES
RS1AA thru RS1MA

FIG. 1 – FORWARD CURRENT DERATING CURVE

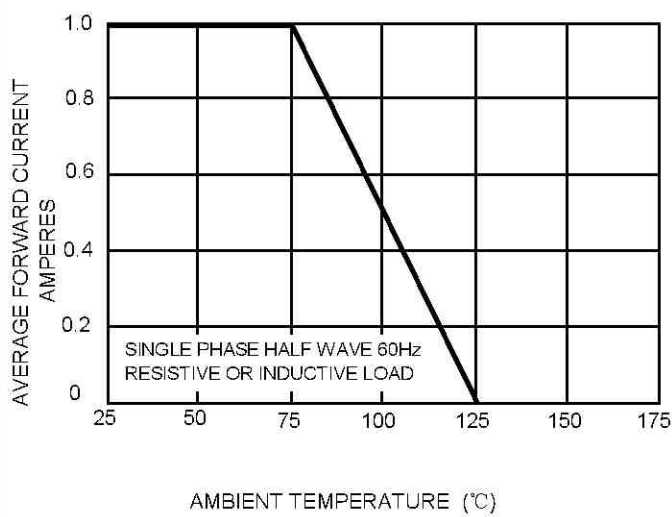


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

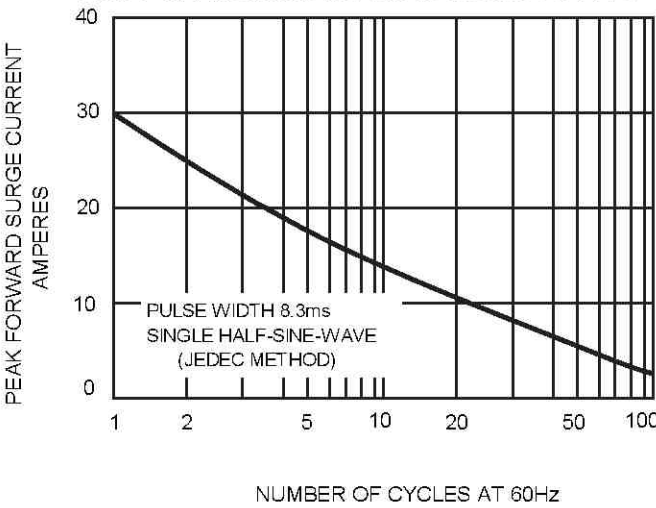


FIG.3 – TYPICAL JUNCTION CAPACITANCE

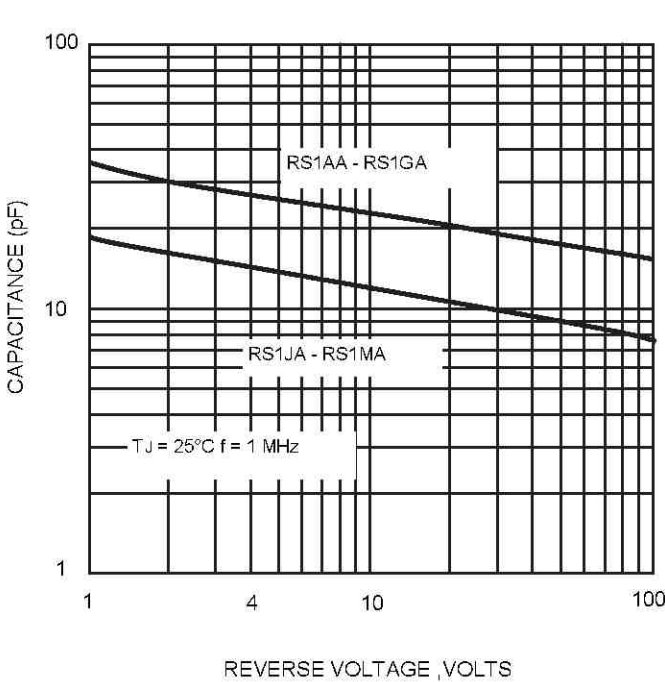


FIG.4-TYPICAL FORWARD CHARACTERISTICS

