

Fast Recovery Rectifiers

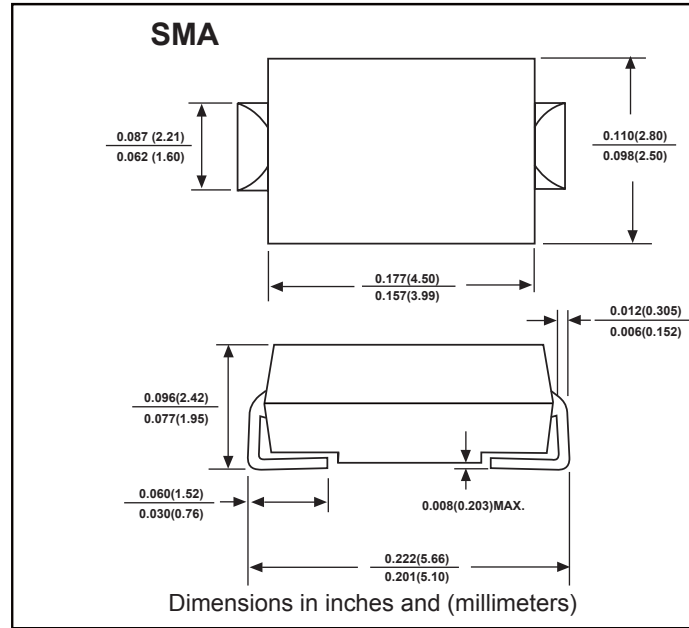
VOLTAGE RANGE: 50--- 1000 V
CURRENT: 1.0 A

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



MAXIMUM RATINGS AND 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	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	UNIT
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 @T _A =75 °C	I _(AV)	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I _{FSM}	30							A
Peak Forward Voltage at 1.0A DC	V _F	1.3							V
Maximum DC Reverse Current @T _J =25°C at Rated DC Blocking Voltage @T _J =100°C	I _R	5.0 100							uA
Maximum Reverse Recovery Time (Note 1)	T _{RR}	150				250	500		nS
Typical Junction Capacitance (Note2)	C _J	25				15			pF
Typical Thermal Resistance (Note3)	R _{θJA}	25							°C/W
Operating Temperature Range	T _J	-50 to +150							°C
Storage Temperature Range	T _{STG}	-50 to +150							°C

NOTES: 1.Measured with I_F=0.5A,I_R=1A,I_{RR}=0.25A

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

3.Thermal resistance junction of ambient.



RATINGS AND CHARACTERISTIC CURVES

FIG. 1 – FORWARD CURRENT DERATING CURVE

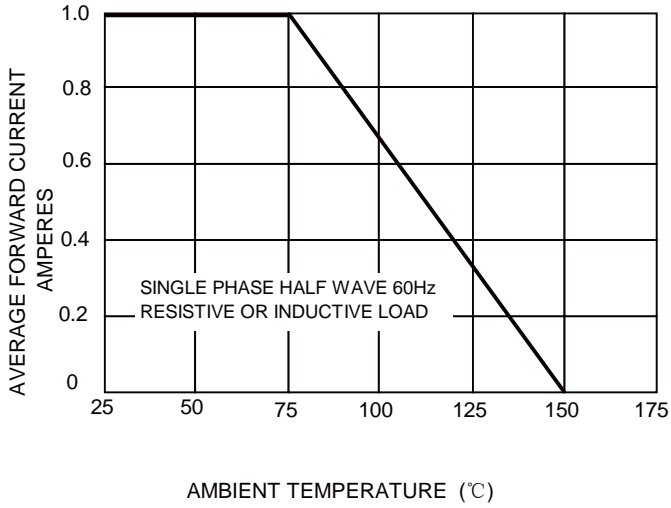


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

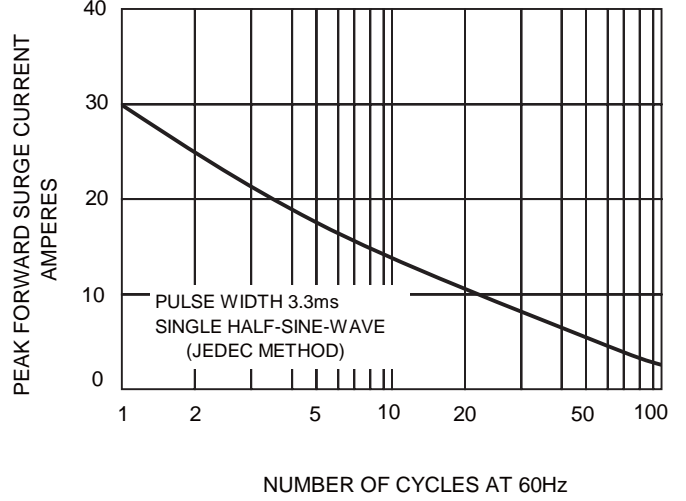


FIG.3 – TYPICAL JUNCTION CAPACITANCE

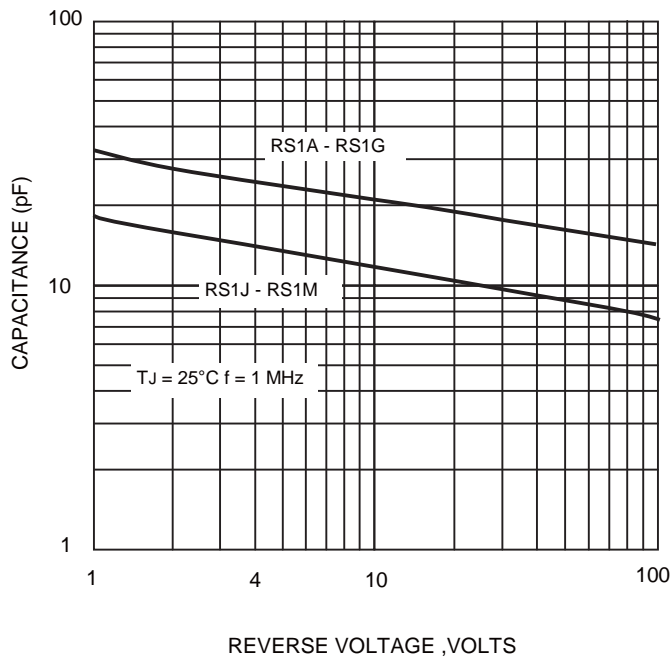


FIG.4-TYPICAL FORWARD CHARACTERISTICS

