

S1A THRU S1M

SURFACE MOUNT RECTIFIER

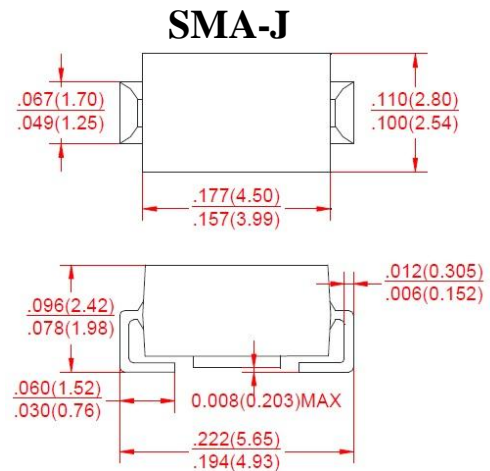
VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere

FEATURES

- ◆ Low forward voltage drop
- ◆ Low leakage current
- ◆ High forward surge capability

Mechanical Data

- ◆ Case: SMA-J 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



Dimensions in inches and (millimeters)

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	S1A	S1B	S1D	S1G	S1J	S1K	S1M	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 = 75°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	1.0							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	I _R	5							μA
		50							
Typical junction capacitance (NOTE 1)	C _J	12							pF
Typical Thermal Resistance (NOTE 2)	R _{θJA}	55							°C/W
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-55 to +150							°C

Note: 1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.

2. Thermal Resistance from Junction to Ambient at 8.0×8.0mm² copper pad areas.

S1A THRU S1M

SURFACE MOUNT RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

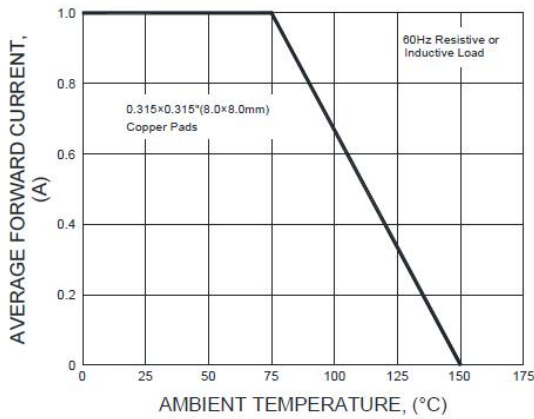


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

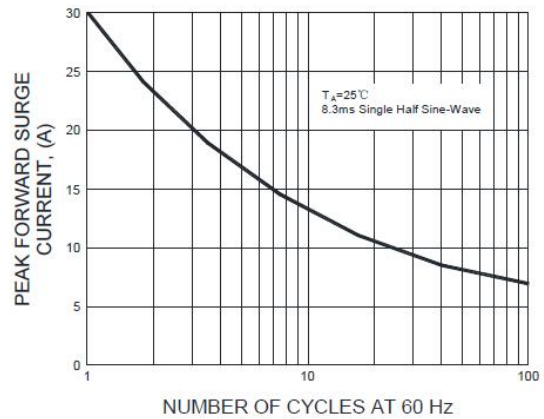


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

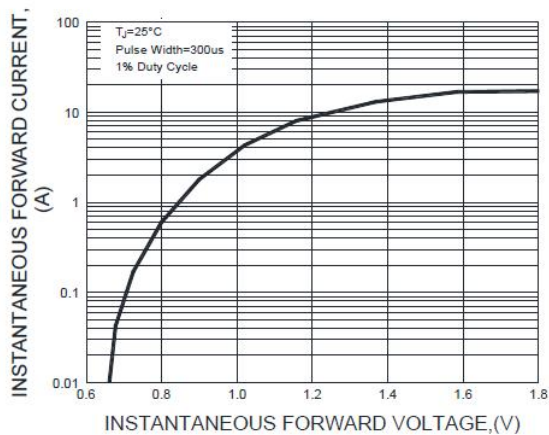


FIG.4-TYPICAL REVERSE CHARACTERISTICS

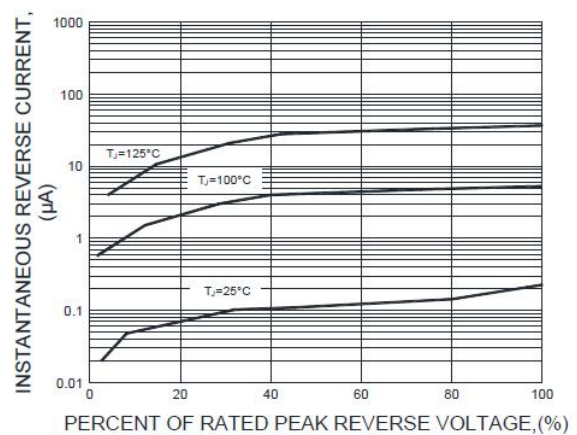
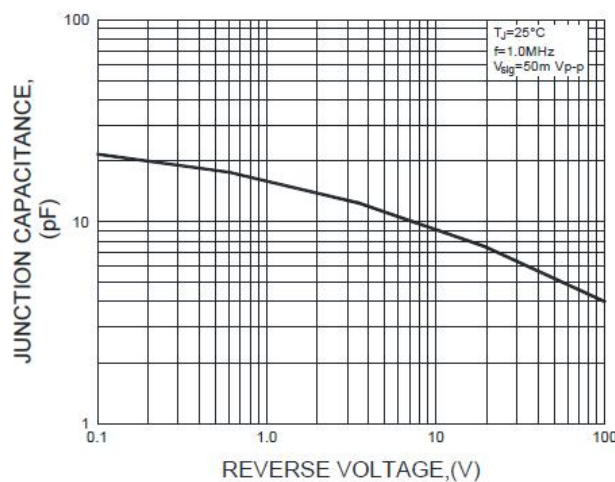


FIG.5-TYPICAL JUNCTION CAPACITANCE



Note: Specification are subject to change without notice. For more detail and update, please visit our website.