

1.0 AMP. Surface Mount Rectifiers

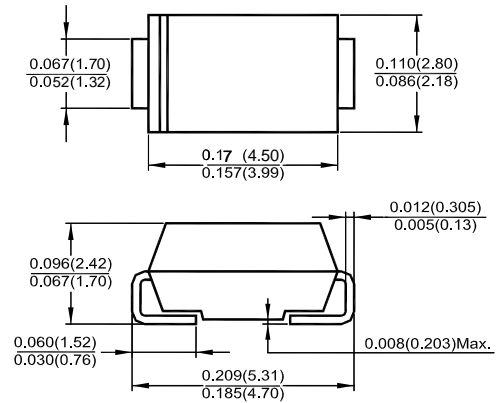
FEATURES

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- For surface mount application
- Low profile package
- Built-in strain relief, ideal for automated placement

MECHANICAL DATA

- SMA (DO-214AC) molded plastic
- Polarity: Color band denotes cathode end

S1A---S1M



Dimensions in inches and (millimeters)  
DO-214AC (SMA)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%.

Parameter	Symbols	S1A	S1B	S1D	S1G	S1J	S1K	S1M	Units
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	$I_{F(AV)}$	1							A
Peak Forward Surge Current , 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	30							A
Maximum Forward Voltage at 1 A	$V_F$	1.1							V
Maximum DC Reverse Current at $T_A = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 125\text{ }^\circ\text{C}$	$I_R$	5 50							$\mu\text{A}$
Typical Junction Capacitance at $V_D = 4\text{ V}$ $f = 1\text{ MHz}$	$C_J$	12							pF
Typical Thermal Resistance <sup>1)</sup>	$R_{JA}$ $R_{JL}$	75 27							$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_S$	- 55 to +1 50							$^\circ\text{C}$

1) Thermal resistance from junction to ambient from junction to lead mounted on P.C.B. with 0.2 X 0.2" (5 X 5 mm) copper pad areas

S1A---S1M Typical Characteristics

FIG.1-FORWARD DERATING CURVE

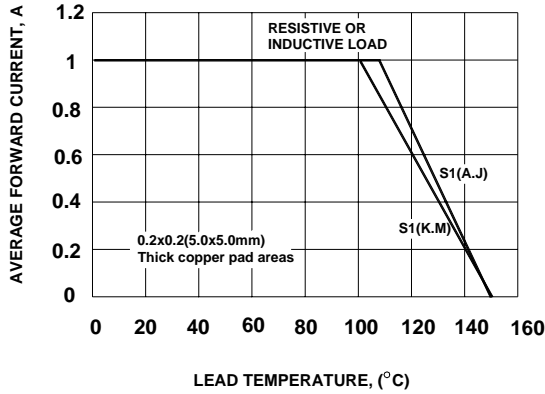


FIG.2- PEAK FORWARD SURGE CURRENT

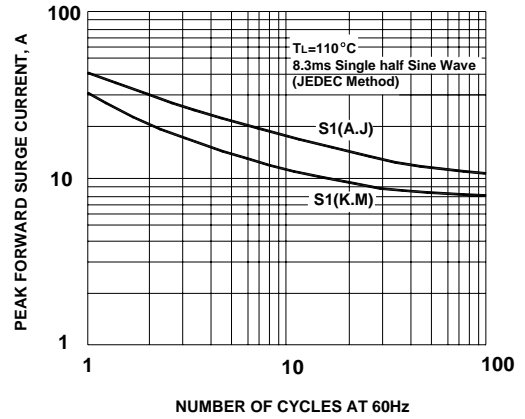


FIG.3-TYPICAL FORWARD CHARACTERISTICS

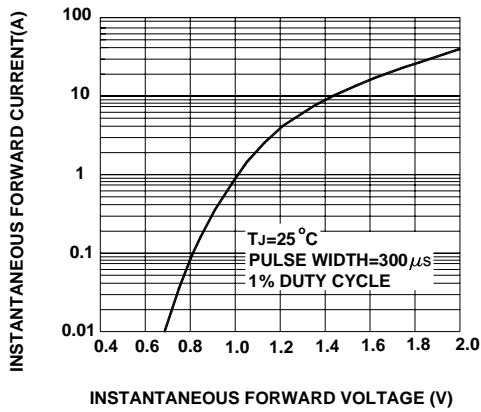


FIG.4-TYPICAL REVERSE CHARACTERISTICS

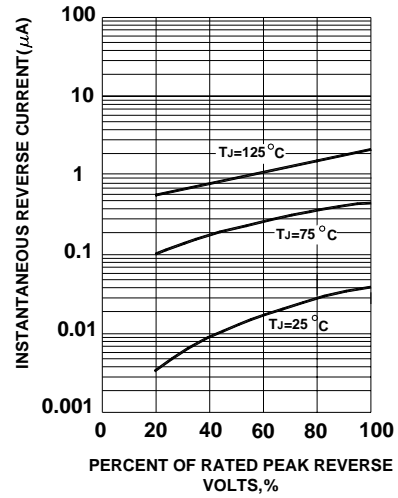


FIG.5- TYPICAL JUNCTION CAPACITANCE

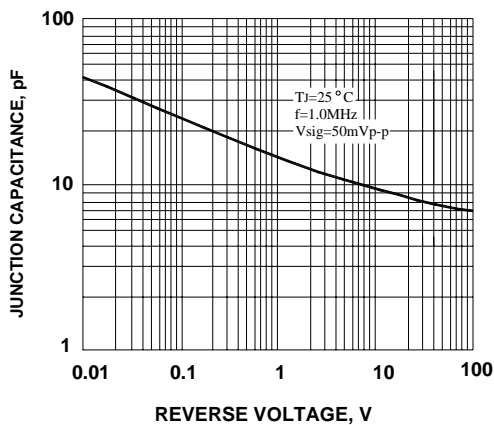


FIG.6- TRANSIENT THERMAL IMPEDANCE

