SA1 ------- S1M

PLASTIC SILICON RECTIFIERS

VOLTAGE RANGE: 50 --- 1000 V
CURRENT: 6.0 A

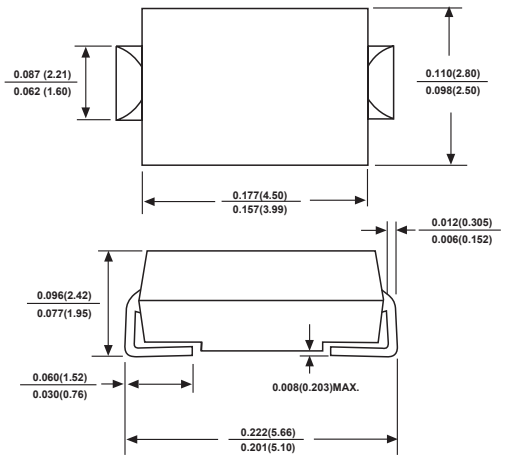
FEATURES

- The plastic package carries Underwrites Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- For surface mounted applications
- Built-in strain relief,ideal for automated placement
- High temperature soldering guaranteed:260℃/10 seconds at Terminals
- Component in accordance to RoHs 2002/95/EC and WEEE 2002/96/EC

MECHANICAL DATA

- Case:SMA molded plastic body
- Terminals:Lead solderable per MIL-STD-750,method 2026
- Polarity:Color band denotes cathode end
- Mounting Position:Any

SMA



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)Single phase,half wave,60 Hz,resistive or inductive load.
For capacitive load,derate by 20%.

Characteristic		SYMBOLS	S1A	S1B	S1D	S1G	S1J	S1K	S1M	UNITS
Maximum recurrent peak reverse voltage Maximum DC blocking voltage		V_{RRM} V_{DC}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage		$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average rectified output current(Note 1)@TA=75℃		$I_{(AV)}$	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDECmethod)		I_{FSM}	30.0							A
Maximum instantaneous forward voltage at 1.0A		V_F	1.0							V
Maximum DC reverse current	@T_A=25	I_{RM}	5.0							μA
at rated DC blocking voltage	@T_A=100		50.0							
Typical Junction Capacitance(Note 1)		C_J	15							pF
Typical thermal resistance (NOTE 2)		$R_{\theta JA}$	85							℃/W
Operating junction and storage temperature range		T_j	-65 to+175							℃

Note:

1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2.Thermal resistance junction to ambient,P.C.B. mounted with 0.2x0.2 ”(5.0x5.0mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

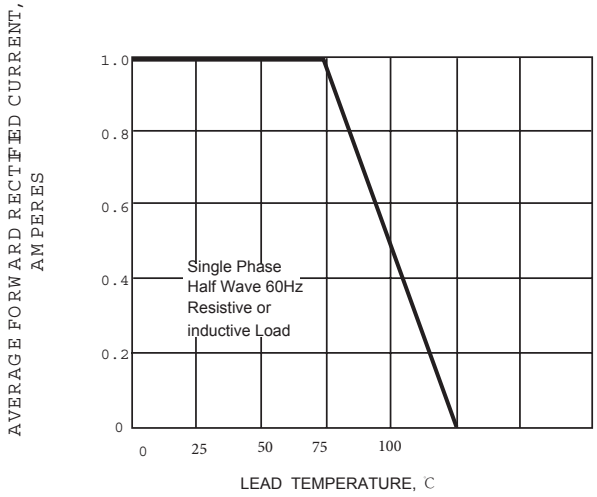


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

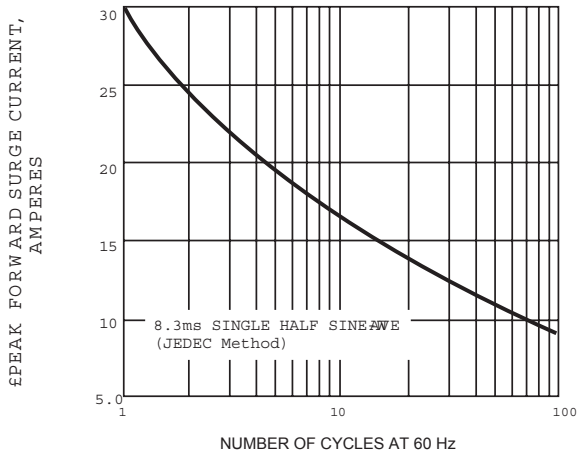


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

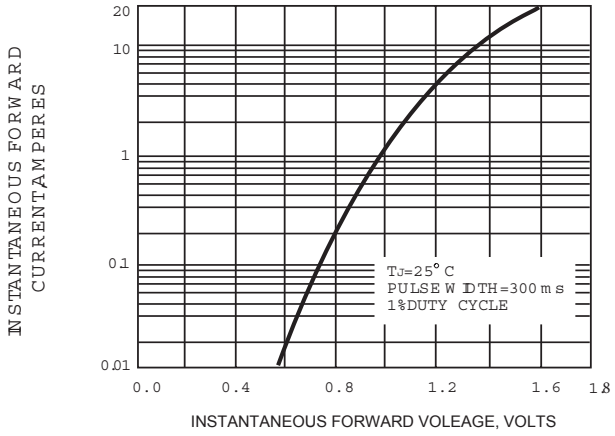


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

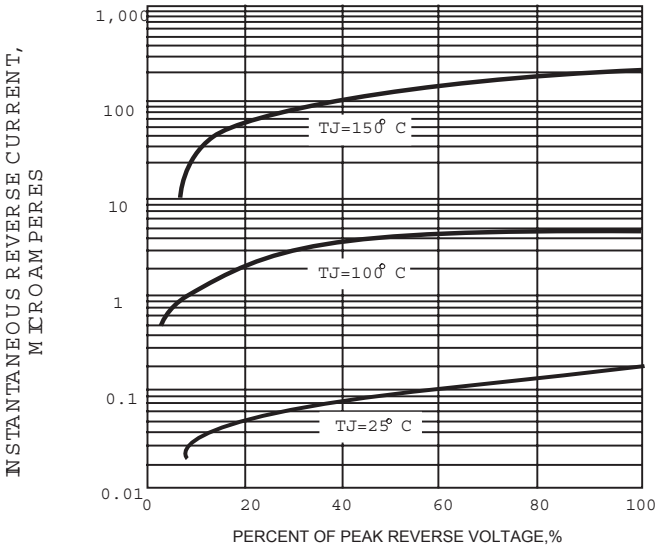
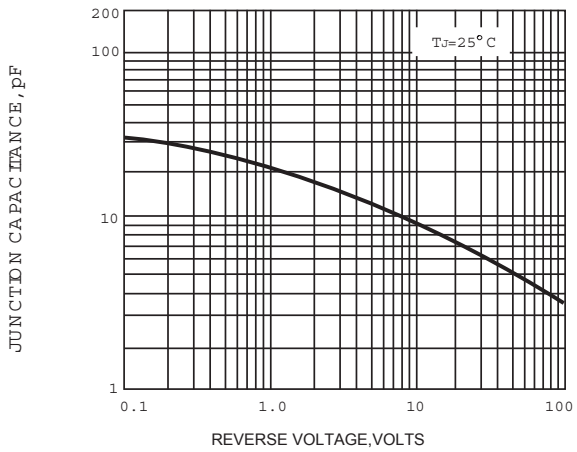


FIG. 5-TYPICAL JUNCTION CAPACITANCE



F1G.6-TYPCALTRANSIENT THERMAL IMPEDANCE