SAMYANG ELECTRONICS

S1A --- S1M

PLASTIC SILICON RECTIFIER

VOLTAGE RANGE: 50 ---- 1000V

CURRENT: 1.0 A

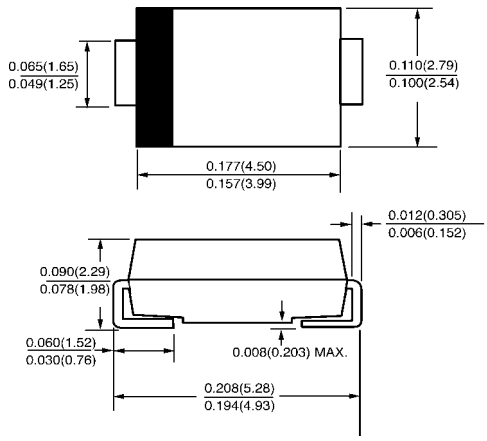
FEATURES

- ◇ For surface mounted applications
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with Alcohol,Isopropnol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

- ◇ Case: JEDEC DO-214AC,molded plastic
- ◇ Terminals: Solder plated, solderable per MIL- STD-202,Method 208
- ◇ Polarity: Color band denotes cathode end
- ◇ Weight: 0.002 ounces, 0.064 grams
- ◇ Mounting position: Any

DO-214AC(SMA)



inch (mm)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase,half wave,60 Hz,resistive or inductive load. For capacitive load,derate by 20%.

		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 @T_L=110℃	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load T_J=125℃	I_{FSM}	30.0							A
Maximum instantaneous forward voltage at 1.0 A	V_F	1.1							V
Maximum reverse current @T_A=25℃ at rated DC blocking voltage @T_A=100℃	I_R	5.0 50.0							㎂
Typical junction capacitance (Note1)	C_J	15.0							pF
Typical thermal resistance (Note2)	R_{JA}	75.0							℃/W
Operating temperature range	T_J	- 55 --- + 125							℃
Storage temperature range	T_{STG}	- 55 --- + 150							℃

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance from junction to ambient

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FIG.1 – FORWARD DERATING CURVE

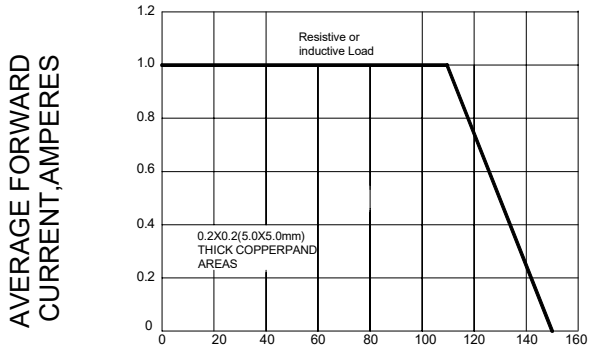


FIG.2 PEAK FORWARD SURGE CURRENT

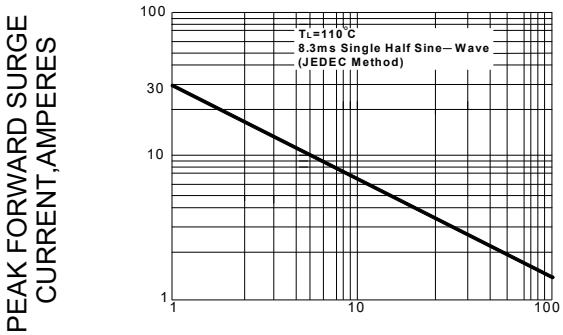


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

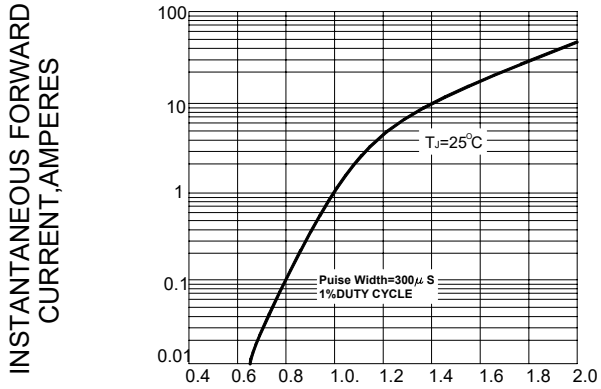


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

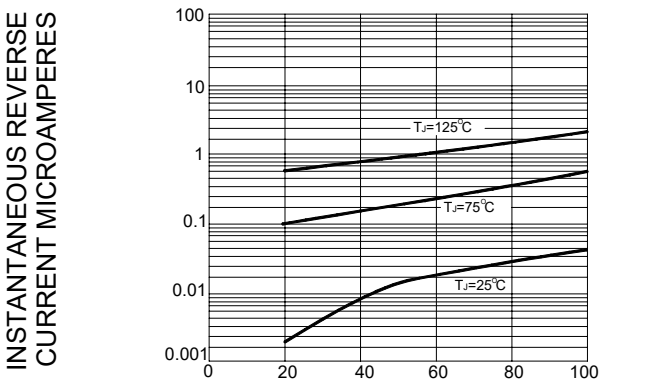


FIG.5-TYPICAL JUNCTION CAPACITANCE

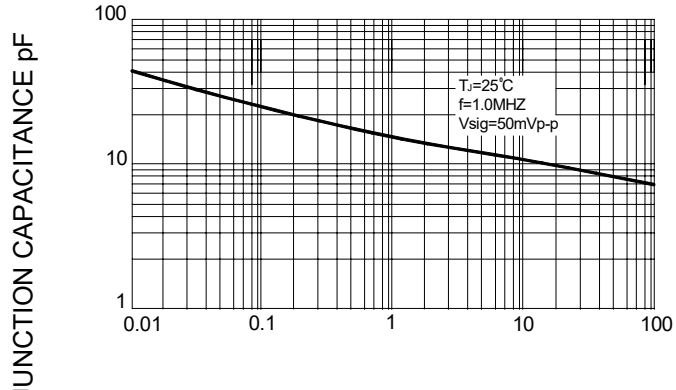


FIG.6-TRANSIENT THERMAL IMPEDANCE

