SAMYANG ELECTRONICS

S2A --- S2M

PLASTIC SILICON RECTIFIER

REVERSE VOLTAGE: 50 --- 1000 V
CURRENT: 2.0 A

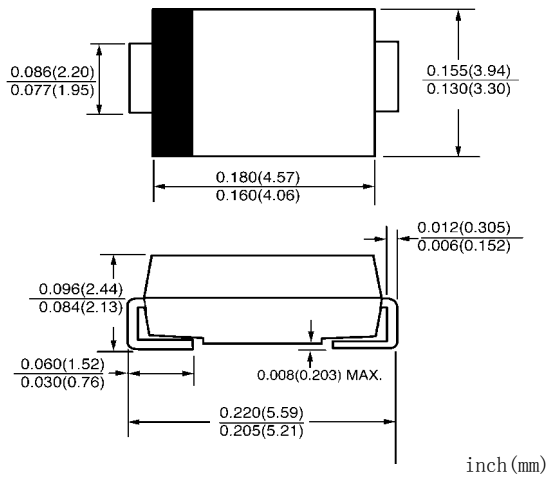
FEATURES

- ◇Plastic package has underwriters laboratory flammability classification 94V-0
- ◇For surface mounted applications
- ◇Low profile package
- ◇Built-in strain relief,ideal for automated placement
- ◇Glass passivated chip junction
- ◇High temperature soldering: 250°C/10 seconds at terminals

MECHANICAL DATA

- ◇Case:JEDEC DO-214AA,molded plastic over passivated chip
- ◇Terminals:Solder Plated, solderable per MIL-STD-750, Method 2026
- ◇Polarity: Color band denotes cathode end
- ◇Weight: 0.003 ounces, 0.093 gram

DO - 214AA(SMB)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

		S2A	S2B	S2D	S2G	S2J	S2K	S2M	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RWS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forword rectified current @ T_L=90°C	$I_{F(AV)}$	2.0							A
Peak forward surge current @ T_L = 110°C 8.3ms single half-sine-wave superimposed on rated load(JEDEC Method)	I_{FSM}	70.0							A
Maximum Instantaneous forward voltage at 2.0A	V_F	1.15							V
Maximum DC reverse current @T_A=25°C at rated DC blockjing voltage @T_A=125°C	I_R	5.0 50.0							μA
Typical junction capacitance (NOTE 2)	C_J	20							pF
Typical thermal resitance (NOTE 3)	$R_{\theta JA}$	40							°C/W
Operating junction and storage temperature range	$T_J T_{STG}$	-55--------+150							°C

NOTE: 1.Reverse recovery time test conditions:I_F=0.5A,I_R=1.0A,I_{rr}=0.25A

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

3. Thermal resistance from junction to ambient and junction to lead P.C.B.mounted on 0.27"X0.27"(7.0X7.0mm²) copper pad areas

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FIG.1 – FORWARD DERATING CURVE

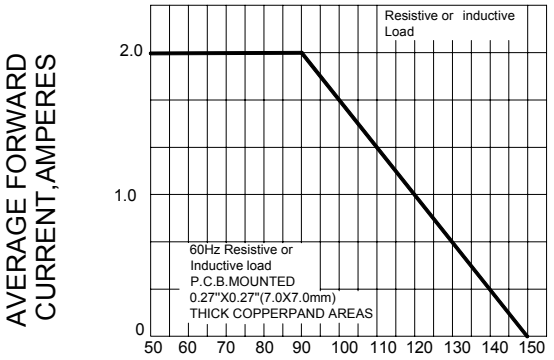


FIG.2 PEAK FORWARD SURGE CURRENT

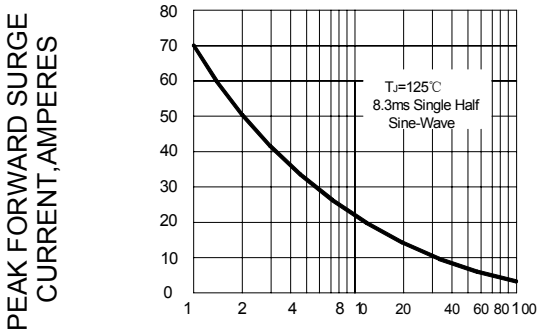


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

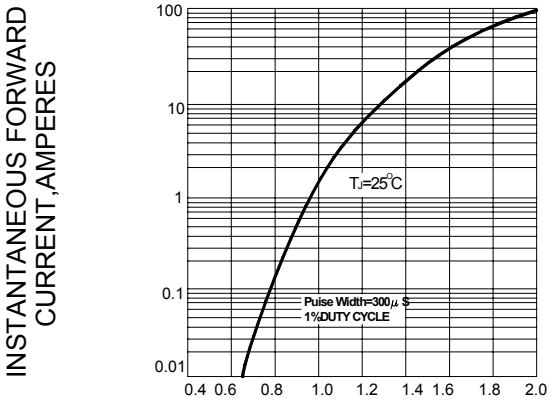


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

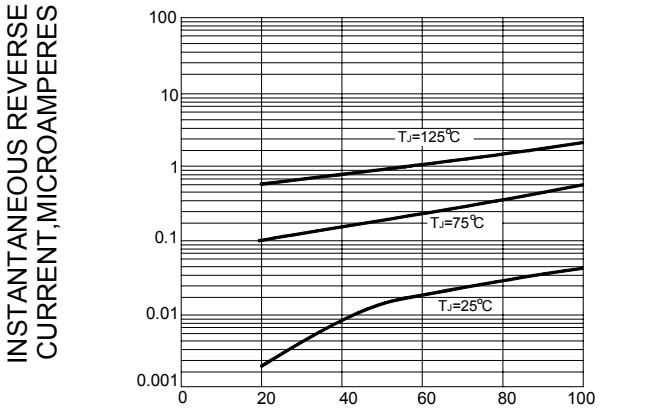


FIG.5-TYPICAL JUNCTION CAPACITANCE

