SAMYANG ELECTRONICS

RS1A --- RS1M

FAST RECOVERY RECTIFIER

REVERSE VOLTAGE: 50 --- 1000 V
CURRENT: 1 A

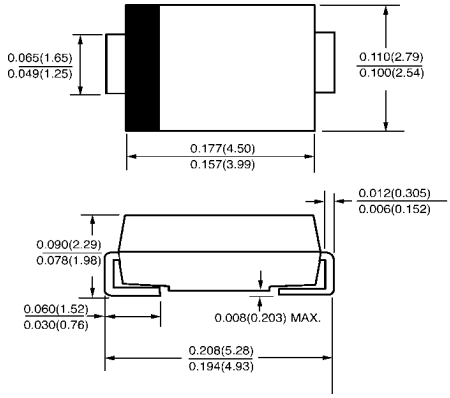
FEATURES

- ◇Plastic package has underwriters laborator 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-214AC,molded plastic over passivated chip
- ◇Terminals:Solder plated, solderable per MIL-STD-750, Method 2026
- ◇Polarity: color band denotes cathode end
- ◇Weight: 0.002 ounces, 0.064 gram

DO - 214AC(SMA)



inch(mm)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

		RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	UNITS
Device marking code		RA	RB	RD	RG	RJ	RK	RM	
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	$I_{F(AV)}$	1.0							A
Peak forward surge current @ T_L = 110°C 8.3ms single half-sine-wave superimposed on rated load	I_{FSM}	30.0							A
Maximum instantaneous forward voltage at 1.0A	V_F	1.30							V
Maximum DC reverse current @T_A=25°C at rated DC blocking voltage @T_A=125°C	I_R	5.0 50.0							μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	150				250	500		ns
Typical junction capacitance (NOTE 2)	C_J	10					7.0		pF
Typical thermal resitance (NOTE 3)	$R_{\theta JA}$ $R_{\theta JL}$	105.0 32.0							°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 0.2"X0.2"(5.0X5.0mm²) copper pad areas

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Fig. 1 — Forward Current Derating Curve

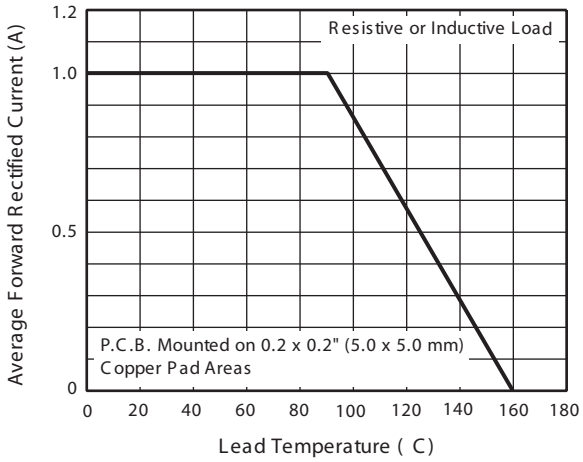


Fig. 2 — Maximum Non-Repetitive Peak Forward Surge Current

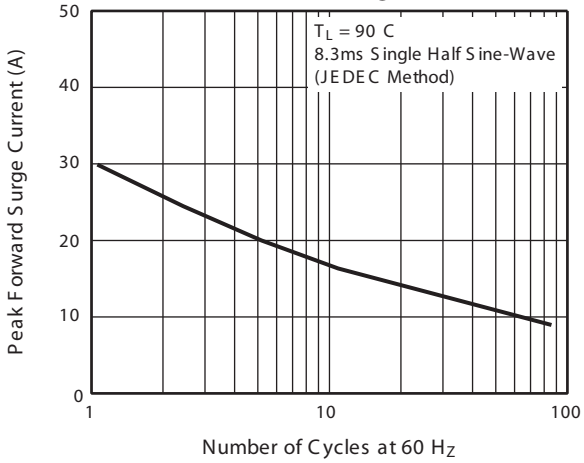


Fig. 3 — Typical Instantaneous Forward Characteristics

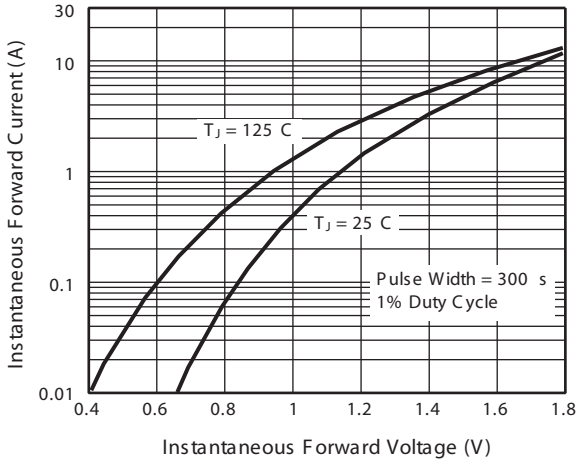


Fig. 4 — Typical Reverse Characteristics

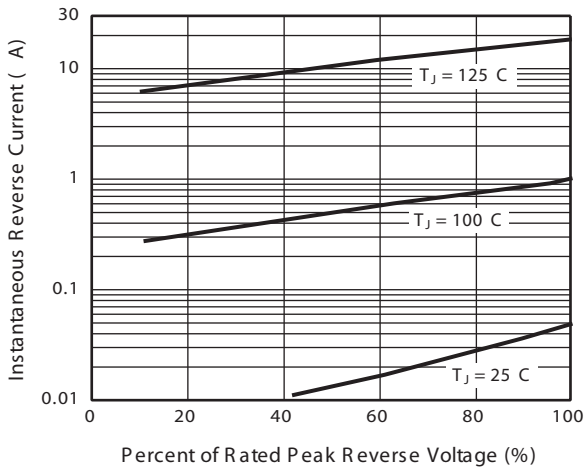


Fig. 5 — Typical Junction Capacitance

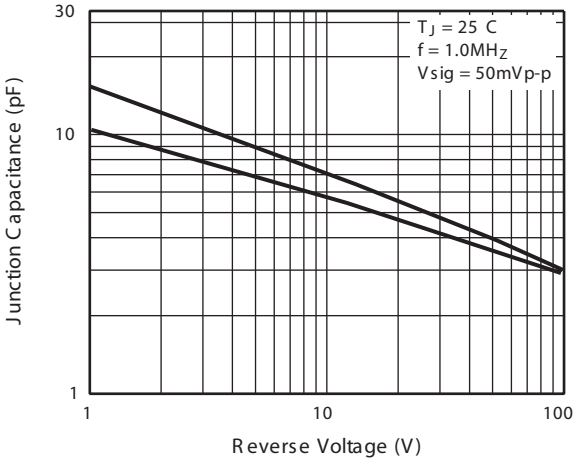


Fig. 6 — Typical Transient Thermal Impedance

