



RS1A THRU RS1M

1.0AMP Surface Mount Glass Fast Recovery Rectifier

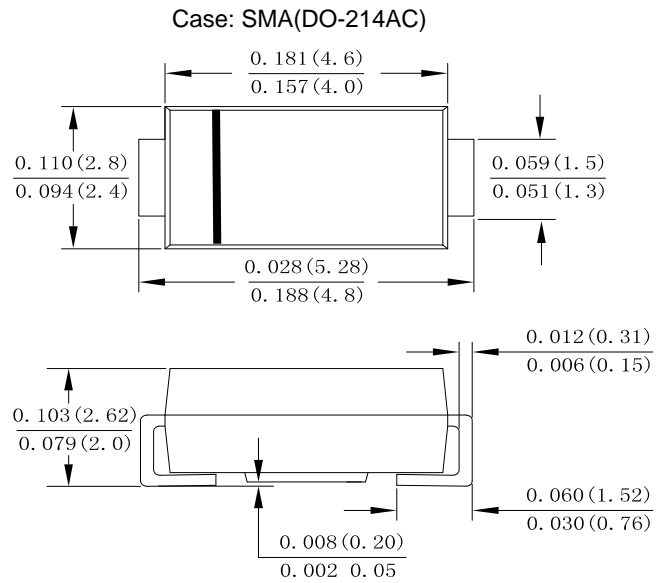
Features

- Fast switching for high efficiency
- Low Power Loss,High Efficiency
- High current capability
- For Use in Low Voltage Application
- Plastic Case Material has UL Flammability

Classification Rating 94V-0

Mechanical Data

- Case: Molded plastic SMA
- Terminals: Plated leads solderable per MIL-STD-750,Method 2026 guaranteed
- Polarity:Cathode Band or Cathode Notch
- Mounting Position: Any
- Making: Type Number



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single phase,half wave,60Hz,resistive or inductive load

For capacitive load derate current by 20%

Type Number	SYMBOL	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	Unit
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
Average Rectified Output Current @T _L =100℃	I _{F(AV)}	1.0							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30							A
Rating for fusing (t<8.3ms)	I ² t	3.74							A ² s
Forward Voltage @IF=1.0A	V _{FM}	1.3							V
Peak Reverse Current @T _A =25℃	I _R	5.0							uA
At Rated DC Blocking Voltage@T _A =125℃		200							
Maximum Reverse Recovery Time (Note 1)	T _{rr}	150				250	500		ns
Typical Junction Capacitance (Note 2)	C _J	7							pF
Typical Thermal Resistance Junction to Ambient(Note 3)	RθJA RθJL	100 32							℃/W
Operating Temperature Range	T _J	-55 to+150							℃
Storage Temperature Range	T _{STG}	-55 to +150							℃

Note: 1.Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $IRR = 0.25\text{A}$.

2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

3. Device mounted on FR-4 substrate, 1"×1", 2oz, single-sided, PC boards with 0.1"×0.15" copper pad.



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AVERAGE FORWARD RECTIFIED CURRENT, (A)

FIG.1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

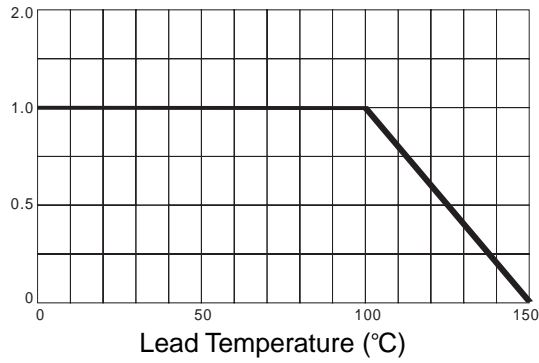


FIG.2 TYPICAL FORWARD CHARACTERISTICS

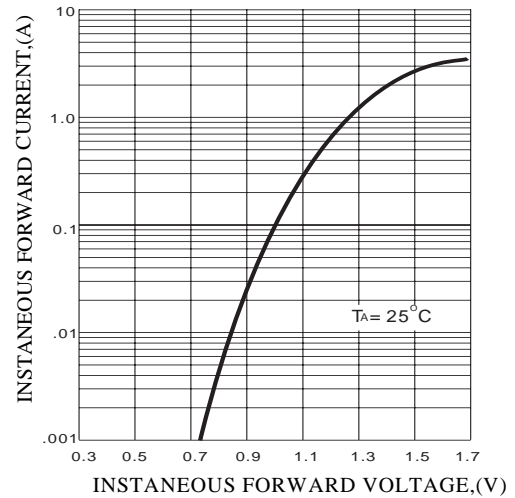


FIG.3 MAXIMUM NON-REPEITIVE SURGE CURRENT

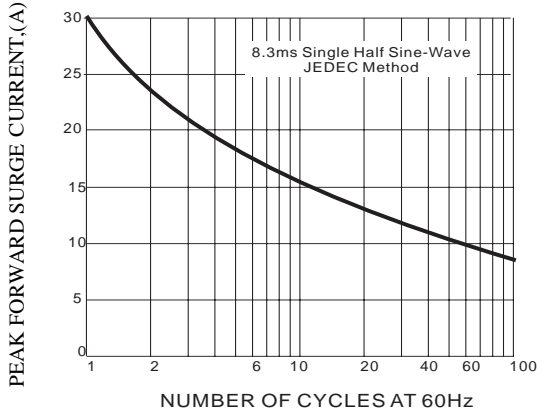


FIG.4 TYPICAL JUNCTION CAPACITANCE

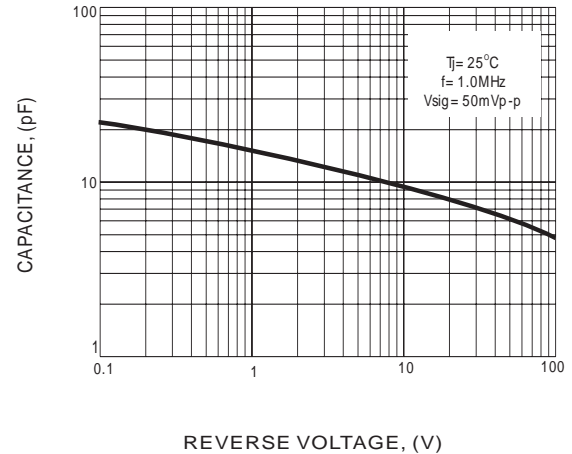
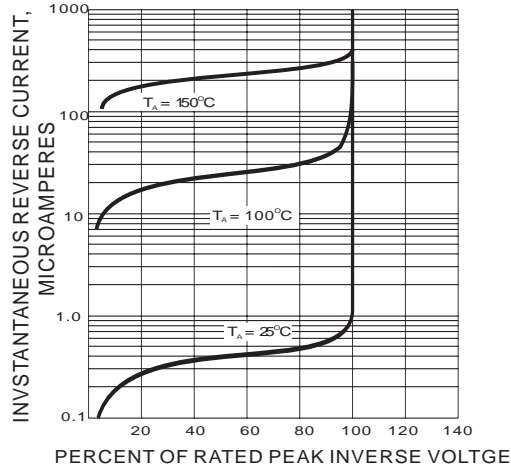
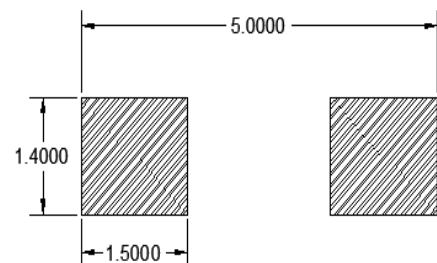


FIG.5 TYPICAL REVERSE CHARACTERISTICS



SMA PAD LAYOUT





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