

Surface Mount Fast Recovery Glass Passivated Rectifier



Features:

- Fast switching for high efficiency
- Low cost
- Diffused junction
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

Mechanical Data:

Case	: Molded Plastic
Polarity	: Indicated by cathode band
Weight	: 0.002 ounces, 0.053 grams
Mounting Position	: Any
Reverse Voltage	: 50 to 1000 Volts
Forward Current	: 1 Ampere

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%.

Characteristics	Symbol	RS1A	RS1B	RS1D	RS1G	RS1J	RS1M	Unit
Max. Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	1000	V
Max. RMS Voltage	V _{RMS}	35	70	140	280	420	700	
Max. DC Blocking Voltage	V _{DC}	50	100	200	400	600	1000	
Max. Average Forward Rectified Current @T _A =75°C	I _(AV)	1.0						A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I _{FSM}	30						
Peak Forward Voltage at 1A DC	V _F	1.3						V
Max. DC Reverse Current at Rated DC Blocking Voltage at	I _R	5 100						μA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	150				250	500	nS
Typical Junction Capacitance (Note 2)	C _J	25				15		pF
Typical Thermal Resistance (Note 3)	R _{θJA}	25						°C/W
Operating Temperature Range	T _J	-55 to +150						°C
Storage Temperature Range	T _{STG}	-55 to +150						°C

Notes:

1. Measured with I_F = 0.5A, I_R = 1A, I_{RR} = 0.25A
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3. Thermal resistance junction to ambient.
4. The typical data above is for reference only

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Ratings and Characteristic Curves

FIG. 1 – FORWARD CURRENT DERATING CURVE

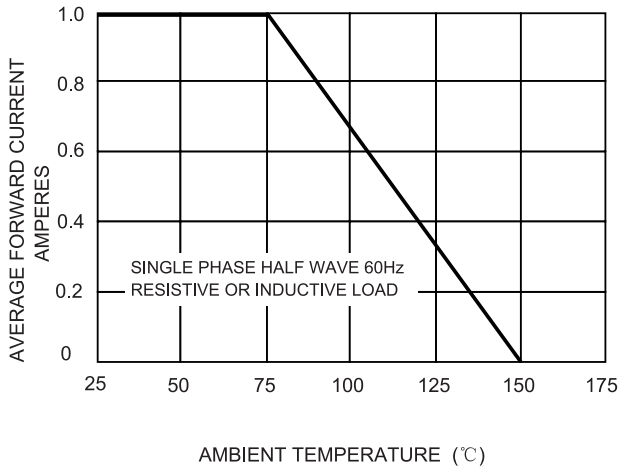


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

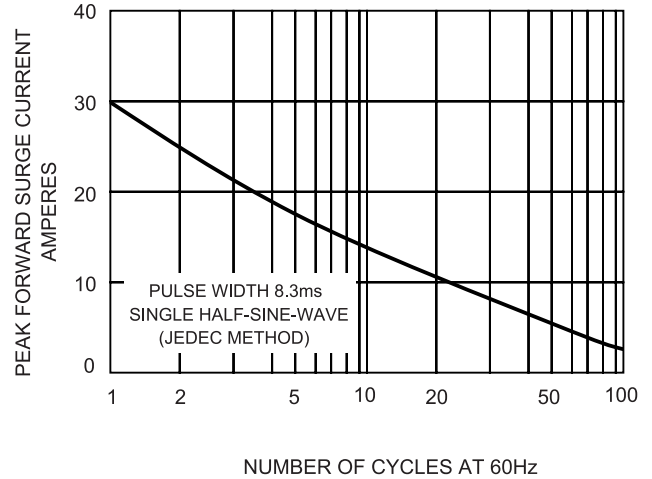


FIG. 3 – TYPICAL JUNCTION CAPACITANCE

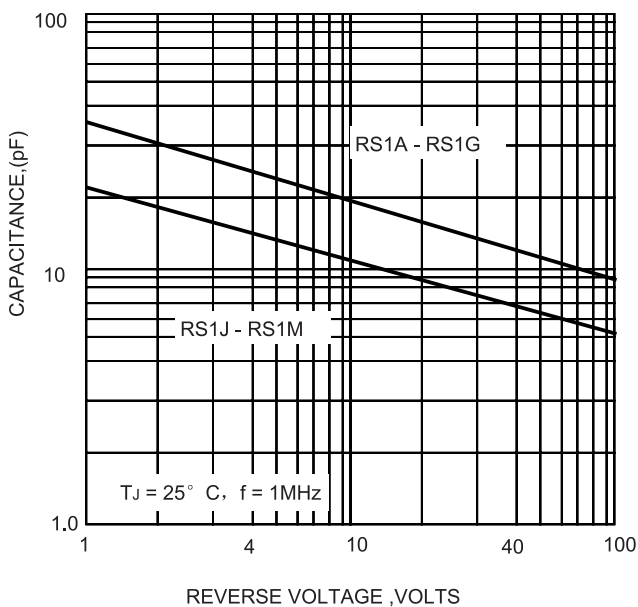
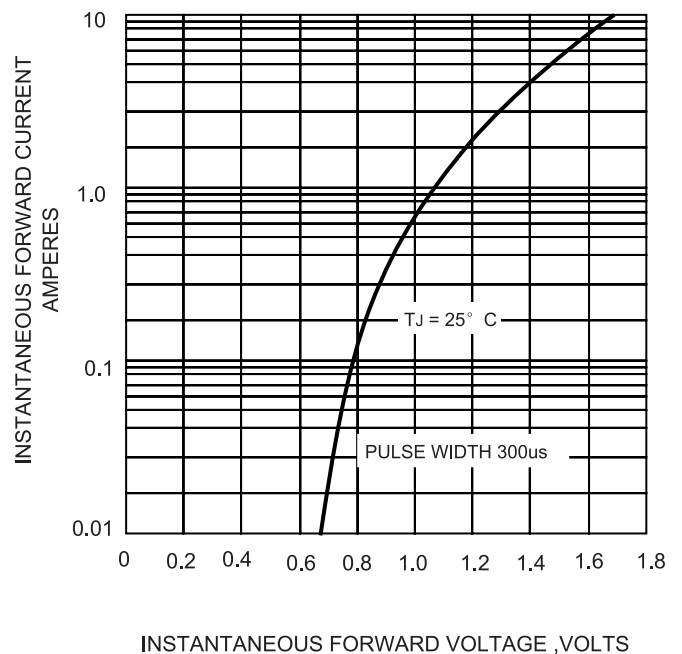


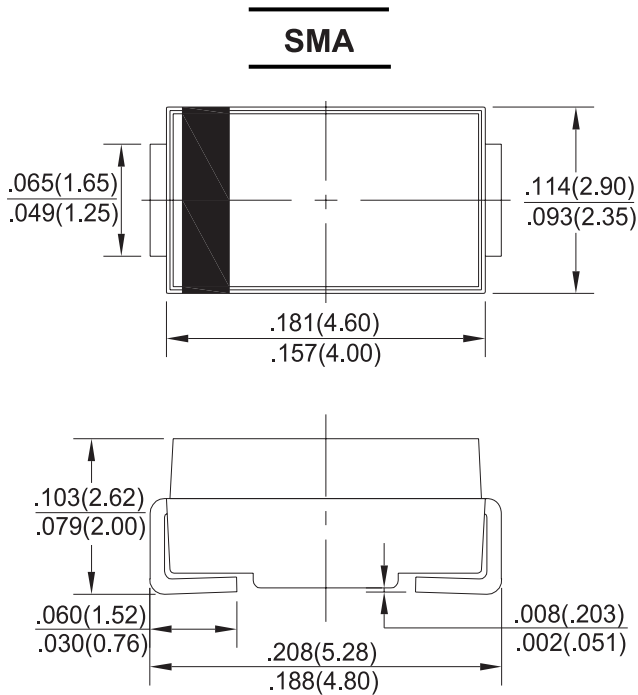
FIG.4-TYPICAL FORWARD CHARACTERISTICS



Surface Mount Fast Recovery Glass Passivated Rectifier



Dimensions:



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Surface Mount Fast Recovery Glass Passivated Rectifiers	RS1A
	RS1B
	RS1D
	RS1G
	RS1J
	RS1M

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