

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 T _A = 25°C Rated DC Blocking Voltage at T _A = 125°C	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)	RθJA	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

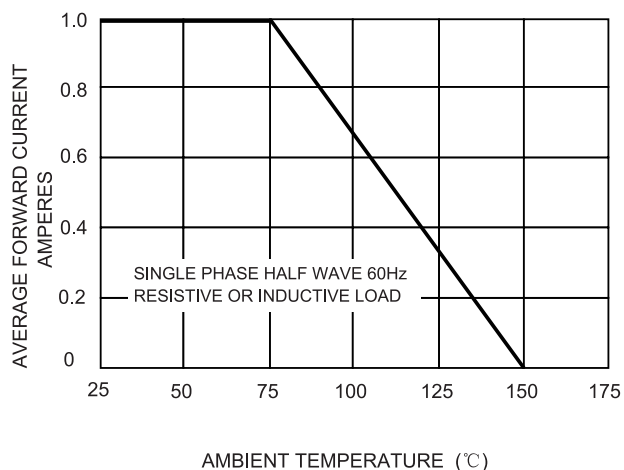


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

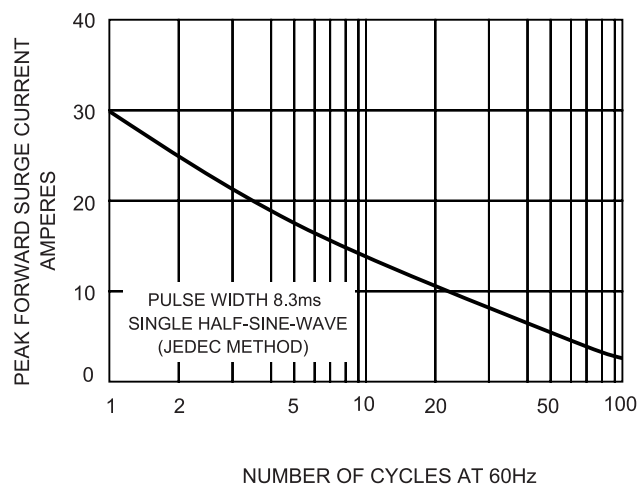


FIG. 3 – TYPICAL JUNCTION CAPACITANCE

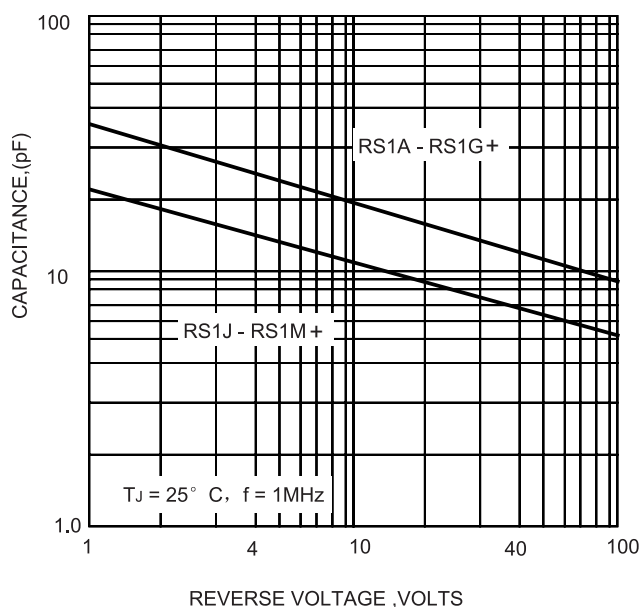
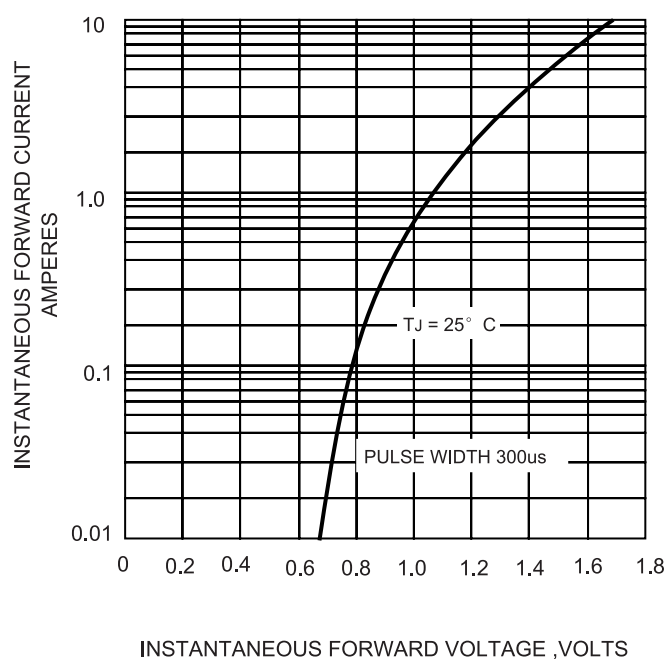


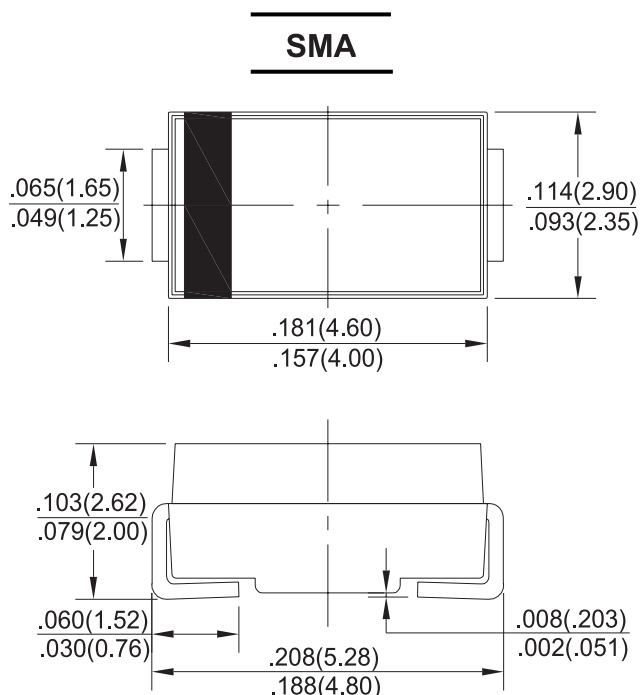
FIG.4-TYPICAL FORWARD CHARACTERISTICS



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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