

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	: Colour band denotes cathode
Weight	: 0.007 ounces, 0.21 grams
Mounting Position	: Any
Reverse Voltage	: 100 to 1000 Volts
Forward Current	: 3 Amperes

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	RS3B	RS3G	RS3M	Unit
Max. Recurrent Peak Reverse Voltage	V_{RRM}	100	400	1000	V
Max. RMS Voltage	V_{RMS}	70	280	700	
Max. DC Blocking Voltage	V_{DC}	100	400	1000	
Max. Average Forward Rectified Current $T_A = 50^\circ\text{C}$	$I_{(AV)}$	3			A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	100			
Peak Forward Voltage at 3A DC	V_F	1.3			V
Max. DC Reverse Current at Rated DC Blocking Voltage at $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	I_R	5 100			μA
Max. Reverse Recovery Time (Note 1)	T_{rr}	150		500	nS
Typical Junction Capacitance (Note 2)	C_J	65		40	pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	15			$^\circ\text{C/W}$
Operating Temperature Range	T_J	-55 to +150			$^\circ\text{C}$
Storage Temperature Range	T_{STG}				

Notes:

1. Measured with $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{RR} = 0.25\text{A}$
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

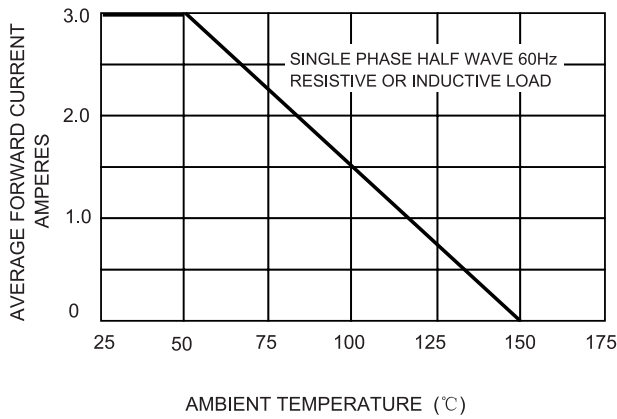


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

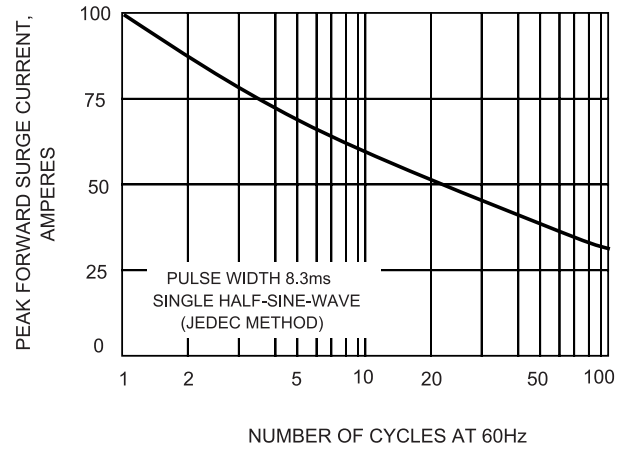


FIG. 3 – TYPICAL JUNCTION CAPACITANCE

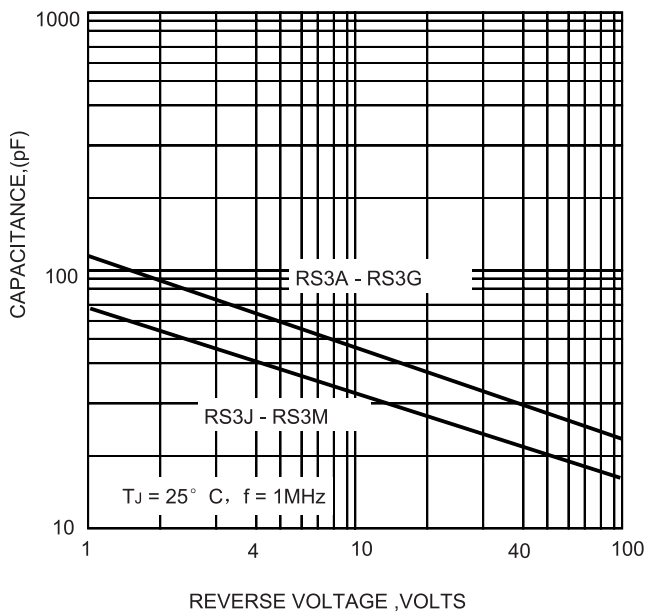
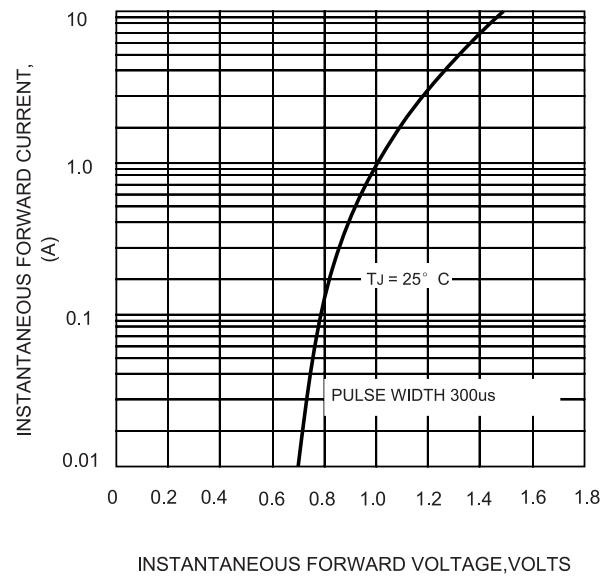


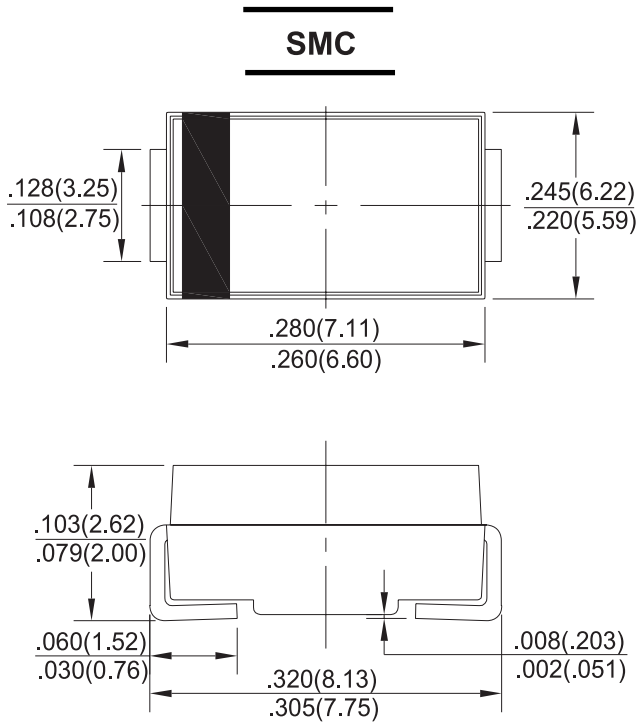
FIG.4-TYPICAL FORWARD CHARACTERISTICS



Surface Mount Fast Recovery Glass Passivated Rectifier



Dimensions:



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Surface Mount Fast Recovery Glass Passivated Rectifiers	RS3B
	RS3G
	RS3M

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