

RS3A THRU RS3M

Surface Mount Fast Recovery Rectifiers

Reverse Voltage - 50 to 1000 V

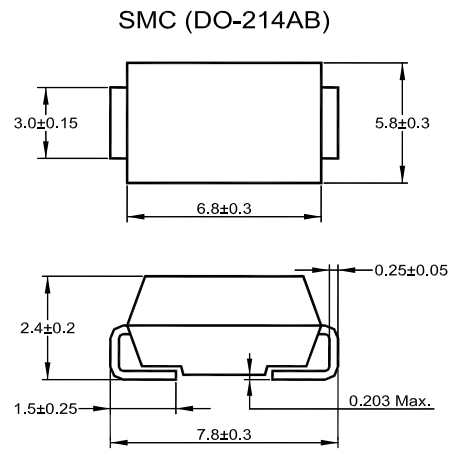
Forward Current - 3 A

Features

- Plastic package has UL flammability classification 94V-0
- For surface mounted applications
- Glass passivated chip junction

Mechanical Data

- Case: SMC (DO-214AB) molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750, method
- Polarity: color band denotes cathode end



Dimensions in millimeters

Maximum Ratings and Electrical Characteristics

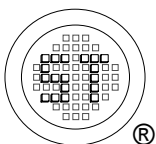
Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	Units
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
Maximum Average Forward Rectified Current at $T_L = 90\text{ }^\circ\text{C}$	$I_{F(AV)}$	3							A
Peak Forward Surge Current, 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	100							A
Maximum Forward Voltage at 3 A	V_F	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	10 200							μA
Maximum Reverse Recovery Time ¹⁾	t_{rr}	150				250	500		ns
Typical Junction Capacitance ²⁾	C_J	32							pF
Typical Thermal Resistance ³⁾	$R_{\theta JA}$	22							$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	T_j, T_{stg}	- 55 to + 150							$^\circ\text{C}$

¹⁾ Reverse recovery time test conditions: $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{rr} = 0.25\text{ A}$.

²⁾ Measured at 1 MHz and applied reverse voltage of 4 V.

³⁾ Thermal resistance from junction to ambient P.C.B mounted on 0.2 X 0.2" (5 X 5 mm²) copper pad areas.



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FIG.1 -- FORWARD DERATING CURVE

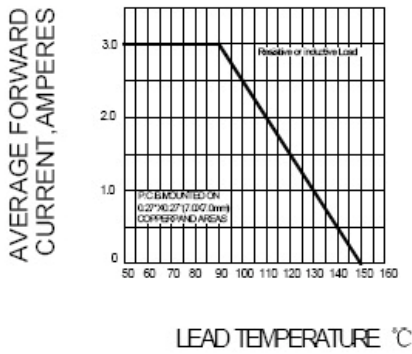


FIG.2 PEAK FORWARD SURGE CURRENT

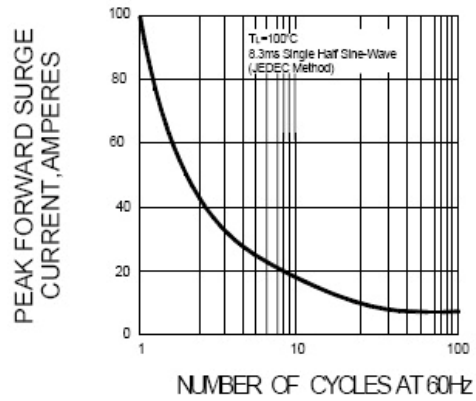


FIG.3 -- TYPICAL FORWARD CHARACTERISTICS

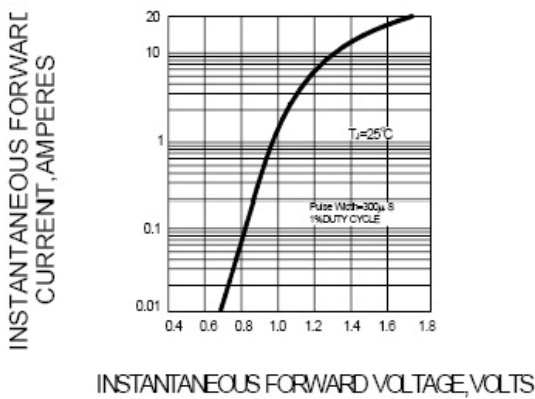


FIG.4 -- TYPICAL REVERSE CHARACTERISTICS

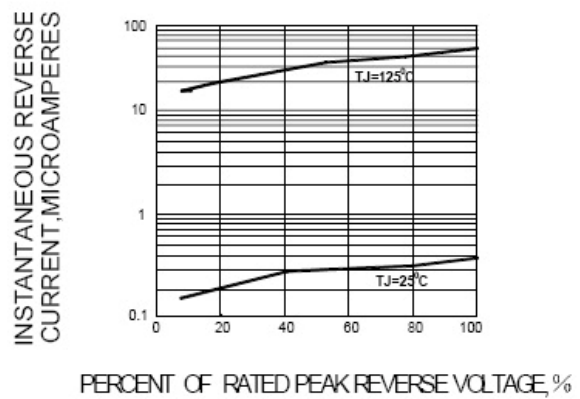
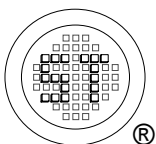
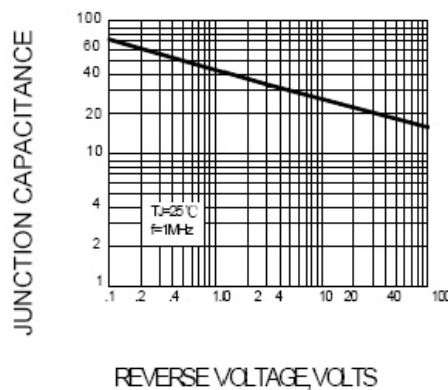


FIG.5 TYPICAL JUNCTION CAPACITANCE



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