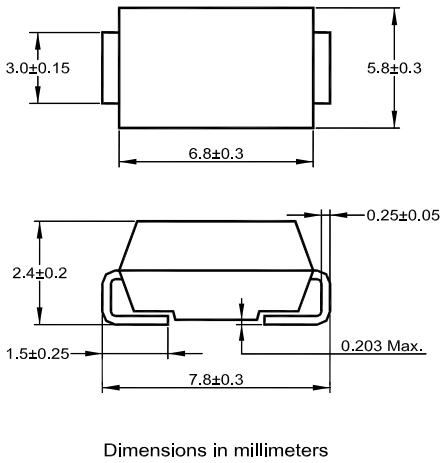
RS3A THRU RS3M

Surface Mount Fast Recovery Rectifiers
Reverse Voltage - 50 to 1000 V
Forward Current - 3 A

SMC (DO-214AB)



Dimensions in millimeters

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

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 °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 T_A = 25 °C at Rated DC Blocking Voltage T_A = 125 °C	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							°C/W
Operating Junction and Storage Temperature Range	T_j , T_{stg}	- 55 to + 150							°C

[1] Reverse recovery time test conditions: I_F = 0.5 A, I_R = 1 A, Irr = 0.25 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 mm^2) copper pad ares.

FIG.1 -- FORWARD DERATING CURVE

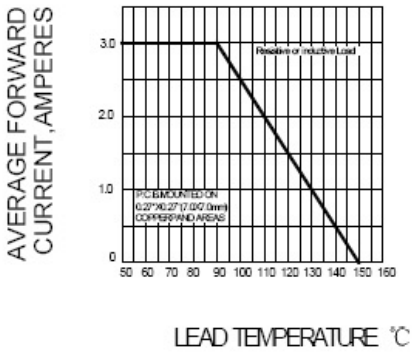


FIG.2 PEAK FORWARD SURGE CURRENT

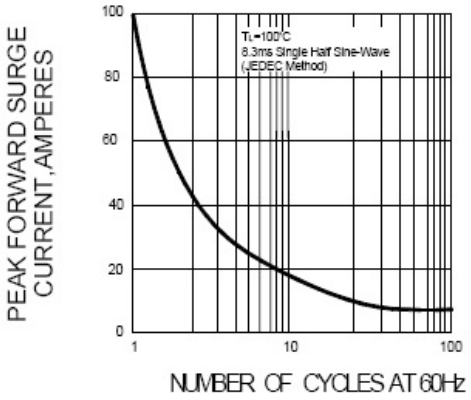


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

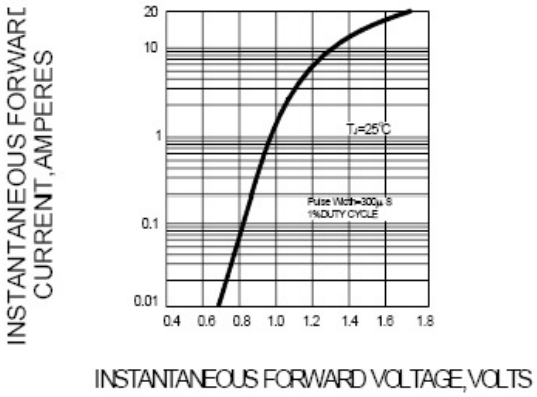


FIG.4 -- TYPICAL REVERSE CHARACTERISTICS

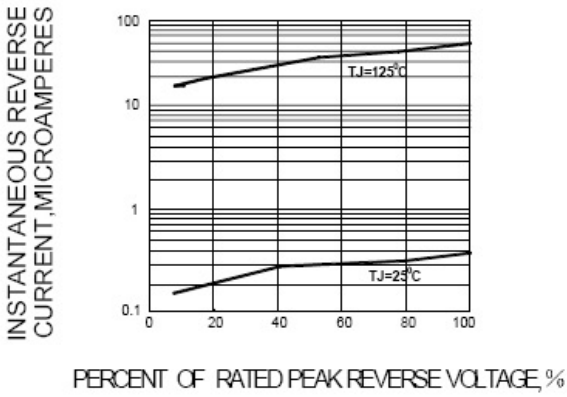


FIG.5-TYPICAL JUNCTION CAPACITANCE