

RS3A - RS3M

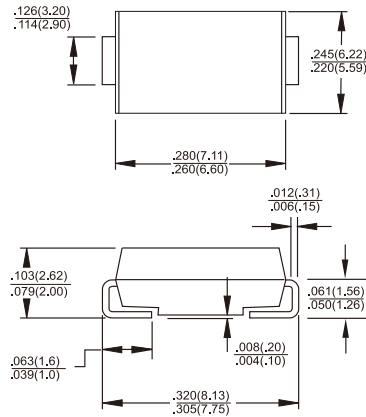
3.0 AMPS. Surface Mount Fast Recovery Rectifiers

SMC/DO-214AB



Features

- ✧ UL Recognized File # E-326243
- ✧ For surface mounted application
- ✧ Glass passivated junction chip
- ✧ Built-in strain relief, ideal for automated placement
- ✧ Plastic material used carries Underwriters Laboratory Classification 94V-0
- ✧ Fast switching for high efficiency
- ✧ High temperature soldering: 260°C /10 seconds at terminals
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode.



Dimensions in inches and (millimeters)

Marking Diagram



- RS3X = Specific Device Code
- G = Green Compound
- Y = Year
- M = Work Month

Mechanical Data

- ✧ Cases: Molded plastic
- ✧ Terminals: Pure tin plated, Lead free.
- ✧ Polarity: Indicated by cathode band
- ✧ Packing: 16mm tape per EIA STD RS-481
- ✧ Weight: 0.21 grams

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%

Type Number	Symbol	RS 3A	RS 3B	RS 3D	RS 3G	RS 3J	RS 3K	RS 3M	Units
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current See Fig. 1 @T _L =75°C	I _{F(AV)}	3.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	100							A
Maximum Instantaneous Forward Voltage @ 3.0A	V _F	1.3							V
Maximum DC Reverse Current at @ T _A =25°C Rated DC Blocking Voltage (Note 1) @ T _A =125°C	I _R	10 250							uA uA
Maximum Reverse Recovery Time (Note 4)	T _{rr}	150			250	500		nS	
Typical Junction Capacitance (Note 2)	C _j	60							pF
Typical Thermal Resistance (Note 3)	R _{θJA} R _{θJL}	50 15							°C/W
Operating Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

- Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle
 2. Measured at 1 MHz and Applied VR=4.0 Volts
 3. Mounted on P.C.B. with 0.6" x 0.6" (16mm x 16 mm) Copper Pad Areas.
 4. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

RATINGS AND CHARACTERISTIC CURVES (RS3A THRU RS3M)

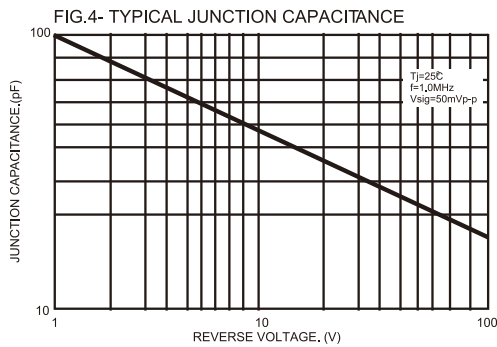
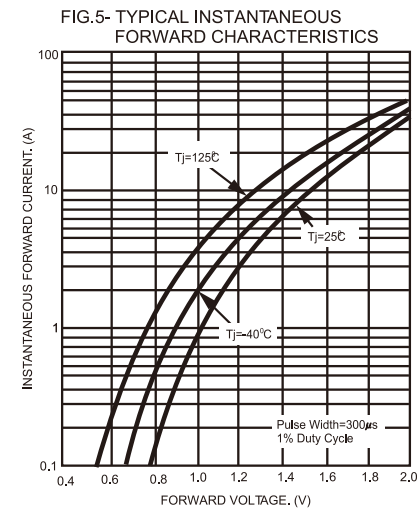
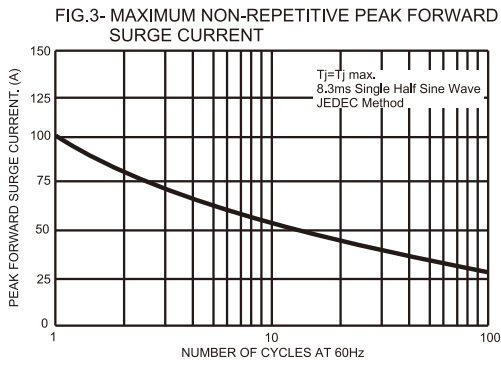
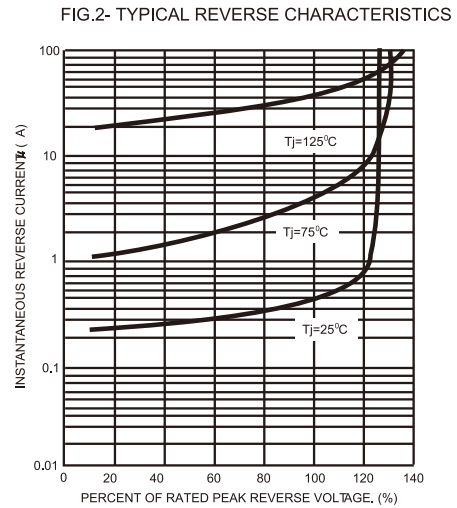
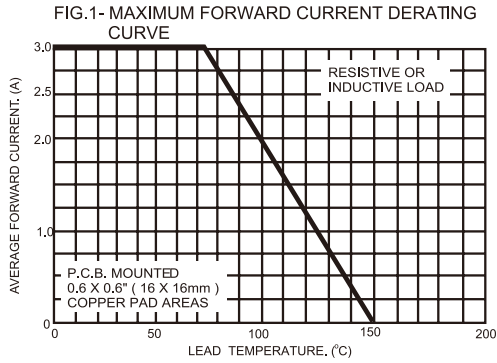


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

