



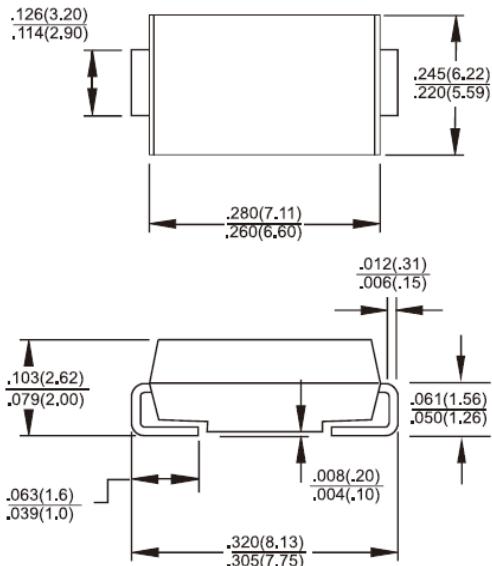
Features

- ◊ For surface mounted application
- ◊ Glass passivated junction chip.
- ◊ Low forward voltage drop
- ◊ High current capability
- ◊ Easy pick and place
- ◊ High surge current capability
- ◊ Plastic material used carries Underwriters Laboratory Classification 94V-0
- ◊ High temperature soldering: 260°C/10 seconds at terminals
- ◊ Green compound with suffix "G" on packing code & prefix "G" on datecode.

Mechanical Data

- ◊ Case: Molded plastic
- ◊ Terminals: Pure tin plated, lead free.
- ◊ Polarity: Indicated by cathode band
- ◊ Packaging: 16mm tape per EIA STD RS-481
- ◊ Weight: 0.21 grams

S5A - S5M
5.0 AMPS. Surface Mount Rectifiers
SMC/DO-214AB



Dimensions in inches and (millimeters)

Marking Diagram



S5X = Specific Device Code
 G = Green Compound
 Y = Year
 M = Work Month

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	S5A	S5B	S5D	S5G	S5J	S5K	S5M	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	$I_{F(AV)}$					5			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 (Note 1) @ 5 A	V_F				1.15				V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	I_R			10	250				uA uA
Typical Reverse Recovery Time (Note 2)	T_{rr}			1.5					uS
Typical Junction Capacitance (Note 3)	C_J			60					pF
Typical Thermal Resistance	$R_{\theta JL}$ $R_{\theta JA}$			13	47				°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. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$

3. Measured at 1 MHz and Applied $V_R=4.0$ Volts

RATINGS AND CHARACTERISTIC CURVES (S5A THRU S5M)

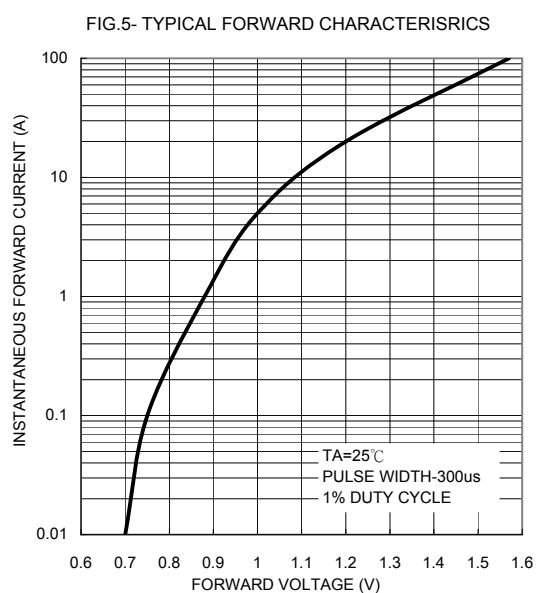
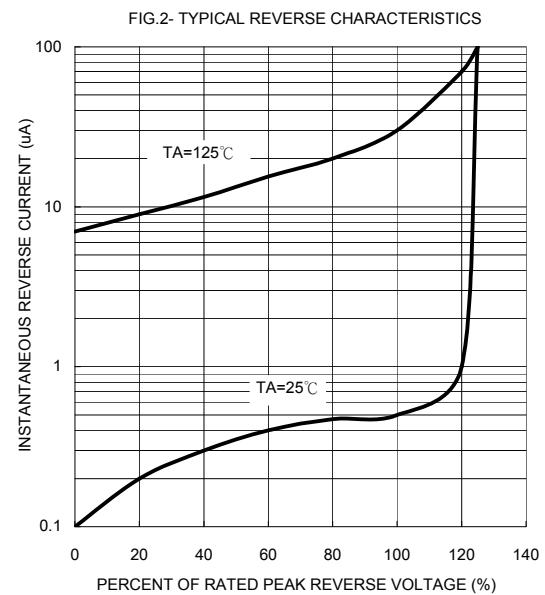
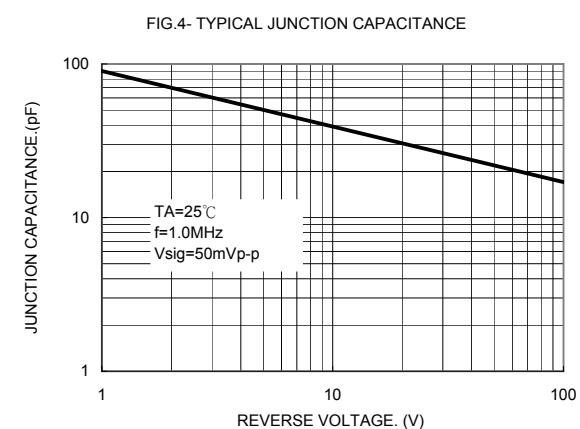
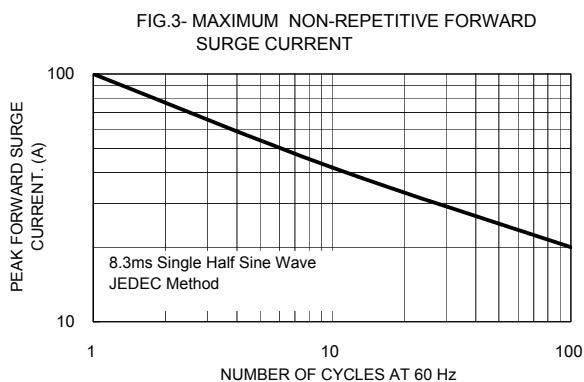
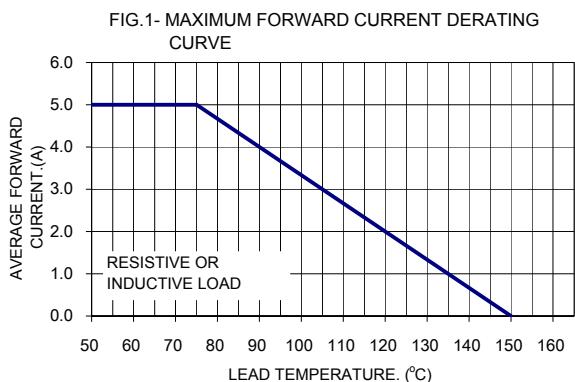


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

