



# S5AC THRU S5MC

## 5.0 AMP Surface Mount Passivated Rectifiers

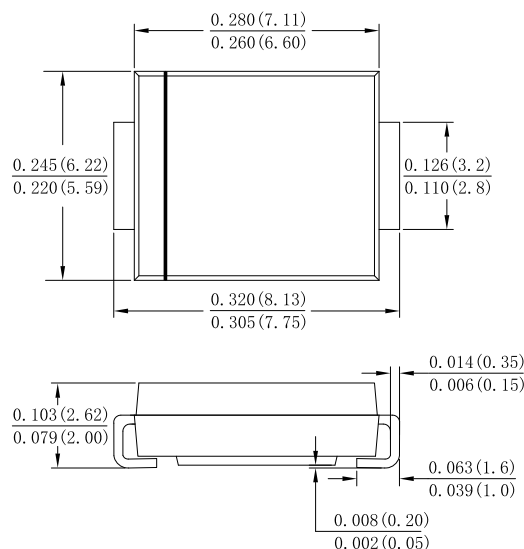
### Features

- Glass Passivated Die Construction
- Low forward voltage drop
- High current capability
- High reliability
- Metal silicon junction,majority carrier conduction
- Plastic Case Material has UL Flammability
- Classification Rating 94V-0

### Mechanical Data

- Case: Molded plastic SMC
- Terminals: Plated leads solderable per MIL-STD-750,Method 2026 guaranteed
- Polarity: as marked on case
- Mounting Position: Any
- Making: Type Number

#### Case: SMC(DO-214AB)



Dimensions in inches and (millimeters)

### 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	Symbols	S5AC	S5BC	S5DC	S5GC	S5JC	S5KC	S5MC	Units
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Average Rectified Output Current @T <sub>C</sub> =110 °C	IF(AV)	5.0							A
Non-Repetitive Peak Forward Surge @T <sub>j</sub> =25 °C Current 8.3ms Single half sine-wave@T <sub>j</sub> =125 °C Superimposed On Rated Load (JEDEC Method)	IFSM	175 140							A
Non-Repetitive Peak Forward Surge @T <sub>j</sub> =25 °C Current 1.0ms Single half sine-wave @T <sub>j</sub> =125°C Superimposed On Rated Load (JEDEC Method)	IFSM	350 280							A
10000 times of the wave surge current (time width 1ms, time interval 3s)	IFSM	131.25							A
I <sup>2</sup> t Rating for Fusing (t < 8.3ms)	I <sup>2</sup> t	127.1							A <sup>2</sup> S
Forward Voltage @IF=5.0A	V <sub>F</sub>	1.0							V
Peak Reverse Current @T <sub>A</sub> =25 °C	I <sub>R</sub>	5.0							uA
At Rated DC Blocking Voltage @T <sub>A</sub> =125°C		100							
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	45							pF
Typical Thermal Resistance	R <sub>θJL</sub>	9							°C/W
	R <sub>θJC</sub>	13							
	R <sub>θJA</sub>	77							
Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150							°C

Note:

- 1.Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C



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Fig. 1 Forward Current Derating Curve

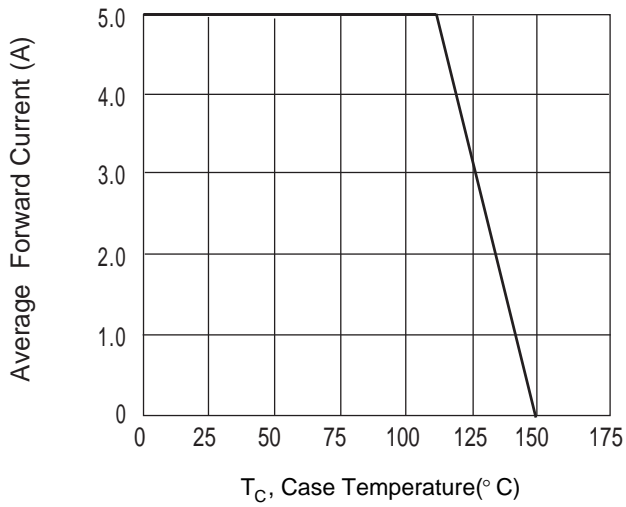


Fig. 2 Typ. Forward Characteristics

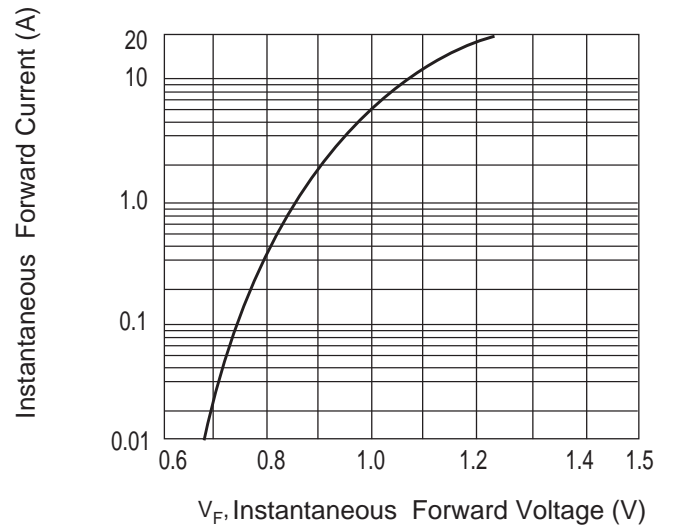


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

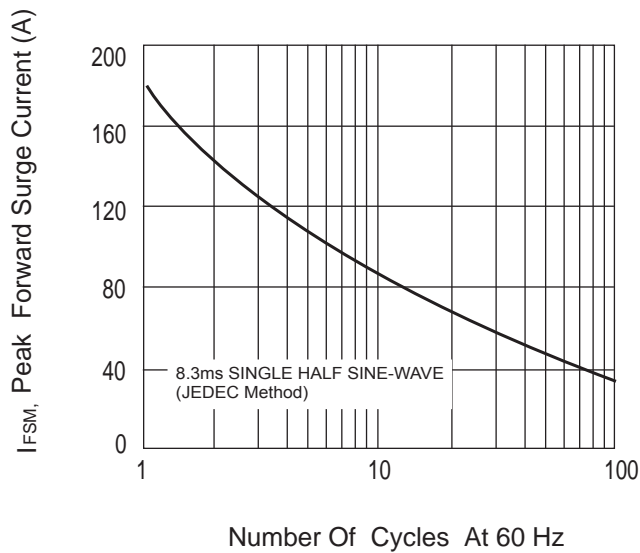


Fig.4 Typical Reverse Characteristics

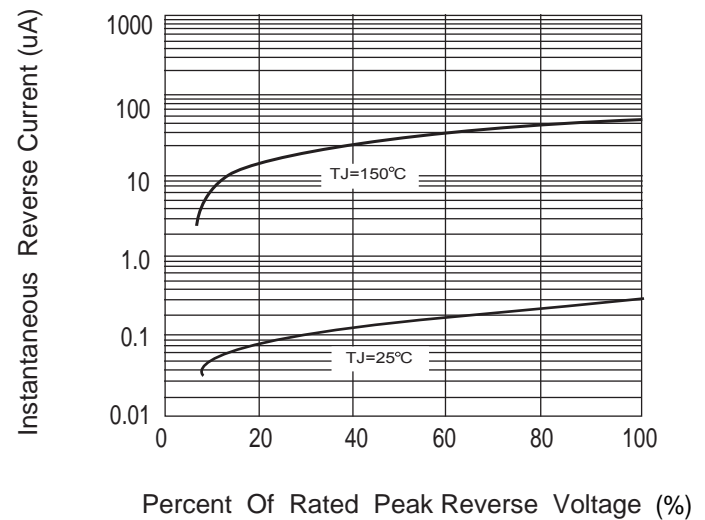


Fig.5 Typical Junction Capacitance

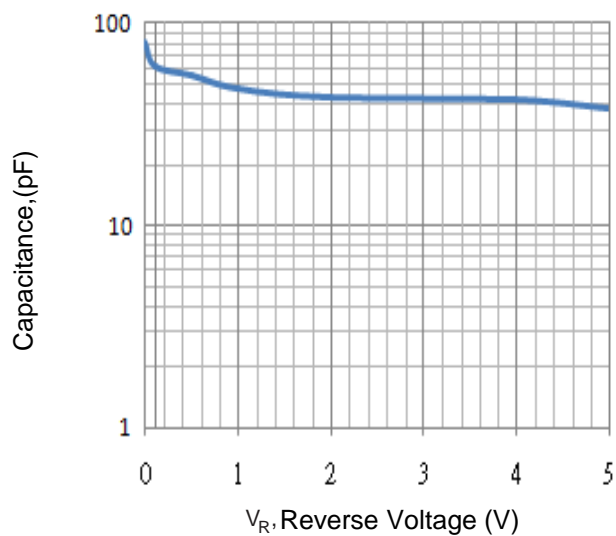
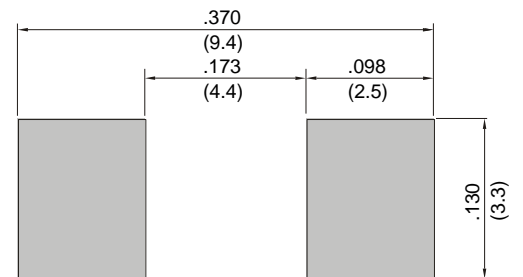


Fig.6 Mounting PAD Layout





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