



# S5A THRU S5M

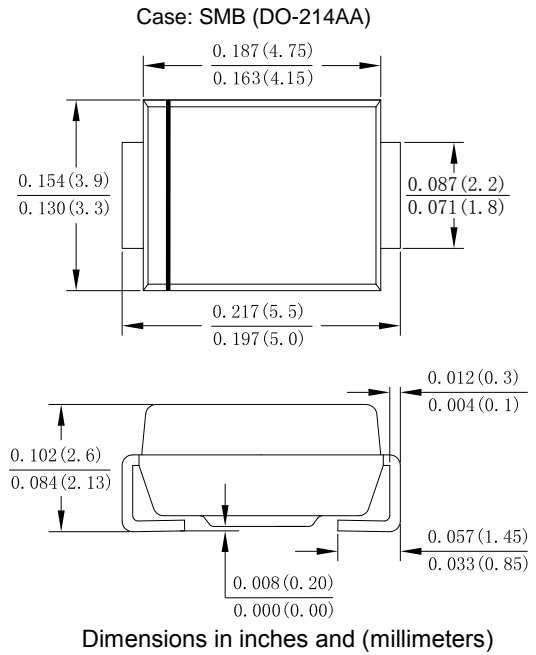
## 5.0 AMP Surface Mount Passivated Rectifiers

### Features

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

### Mechanical Data

- Case: Molded plastic SMB
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026 guaranteed
- Polarity: Color band dented cathode end
- Mounting Position: Any
- Making: Type Number



### 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	SYMBOL	S5A	S5B	S5D	S5G	S5J	S5K	S5M	Unit
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
Average Rectified Output Current @ $T_L = 110^\circ C$	$I_{F(AV)}$	5.0							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	175							A
Forward Voltage @ $I_F = 5.0A$	$V_{FM}$	1.0							V
Peak Reverse Current @ $T_A = 25^\circ C$	$I_R$	5.0							uA
At Rated DC Blocking Voltage @ $T_A = 125^\circ C$		100							
$I^2t$ Rating for fusing ( $t < 8.3ms$ )	$I^2t$	127.1							A <sup>2</sup> s
Typical Junction Capacitance (Note 1)	$C_J$	45							pF
Typical Thermal Resistance Junction to Ambient (Note 2)	$R_{\theta JA}$	95							C/W
Operating Temperature Range	$T_J$	-55 to +150							°C
Storage Temperature Range	$T_{STG}$	-55 to +150							°C

- Note:
1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C
  2. Device mounted on FR-4 substrate, 1"×1", 2oz, single-sided, PC boards with 0.1"×0.15" copper pad.



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## 5.0 AMP Surface Mount Passivated Rectifiers

FIG.1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

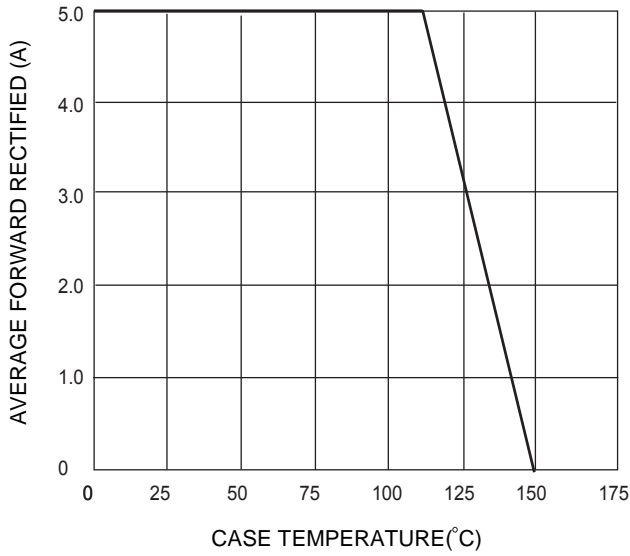


FIG.2 TYPICAL FORWARD CHARACTERISTICS

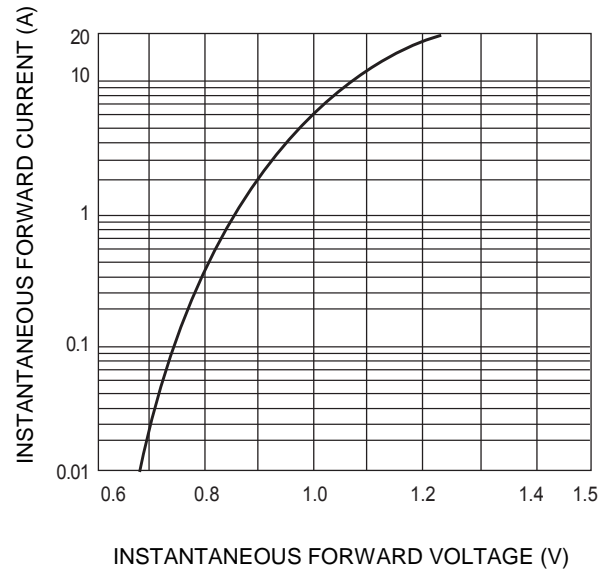


FIG.3 MAXIMUM NON-REPEITIVE SURGE CURRENT

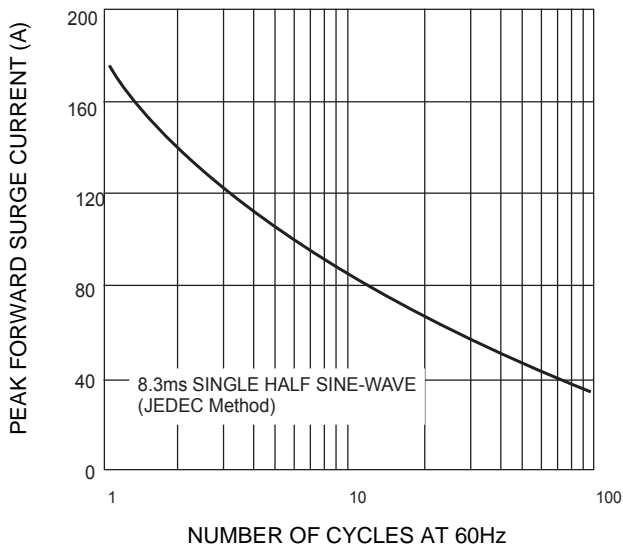


Fig. 4 TYPICAL REVERSE CHARACTERISTICS

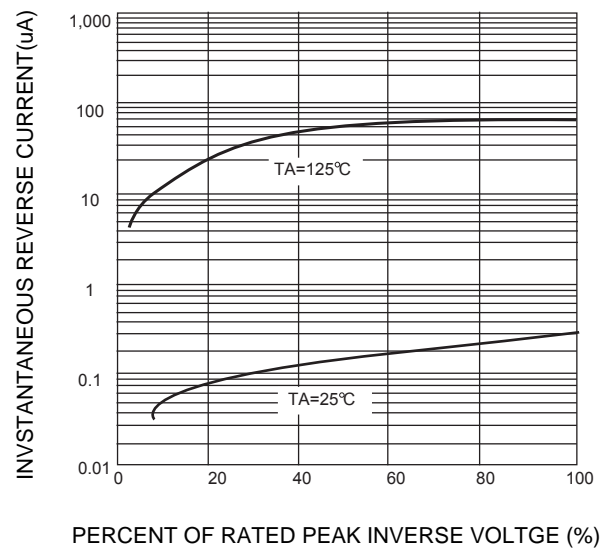


FIG. 5 TYPICAL JUNCTION CAPACITANCE

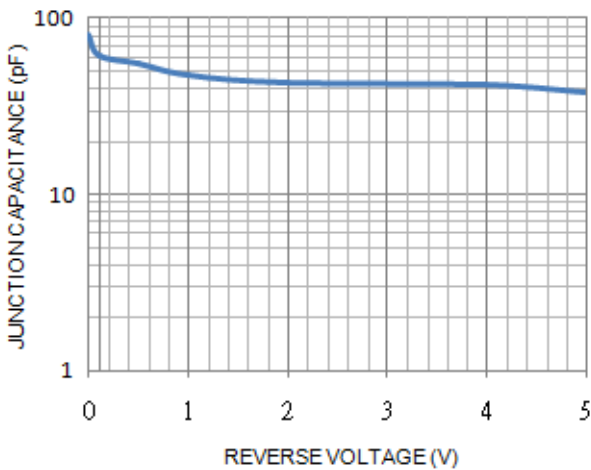
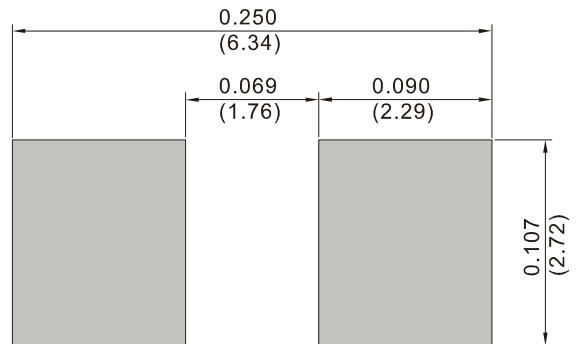


FIG.6 MOUNTING PAD LAYOUT





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