



S5A THRU S5M

5.0 AMP Surface Mount Passivated Rectifiers

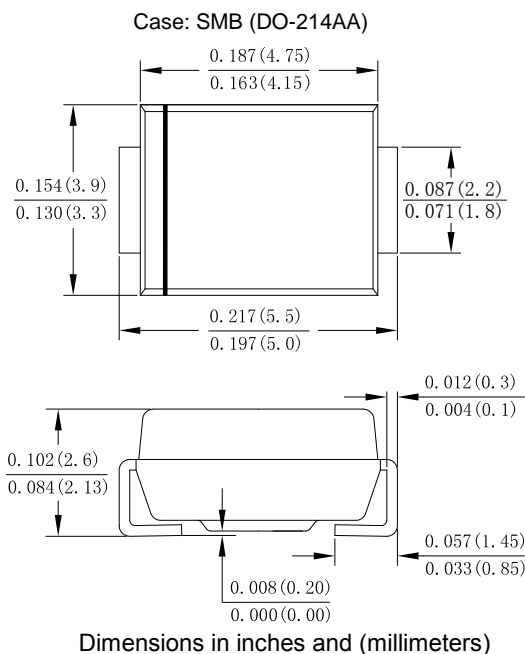
Features

- 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 °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 @IF=5.0A	V _{FM}	1.0							V
Peak Reverse Current @T _A =25 °C	I _R	5.0							uA
At Rated DC Blocking Voltage @T _A =125 °C		100							
I ² t Rating for fusing (t <8.3ms)	I ² t	127.1							A ² s
Typical Reverse Recovery Time (Note 1)	T _{rr}	3500							ns
Typical Junction Capacitance (Note 2)	C _J	45							pF
Typical Thermal Resistance Junction to Ambient	R _{θJA}	95							°C/W
Operating Temperature Range	T _J	-55 to+150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

Note:

1. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$
2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C



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Fig. 1 Forward Current Derating Curve

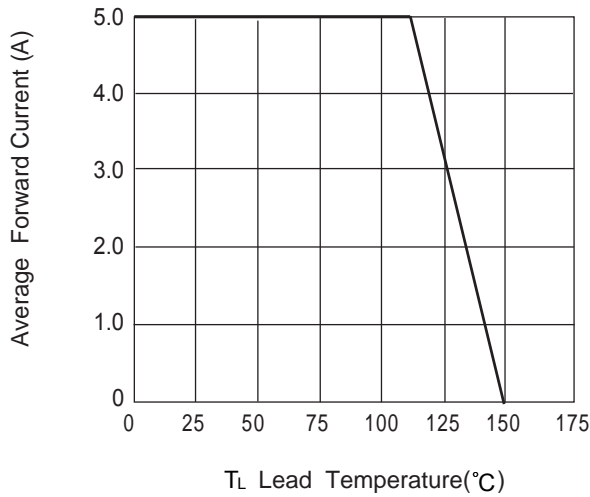


Fig. 2 Typ. Forward Characteristics

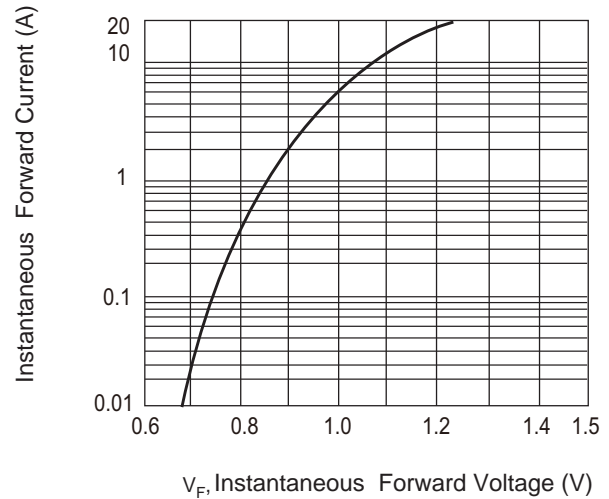


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

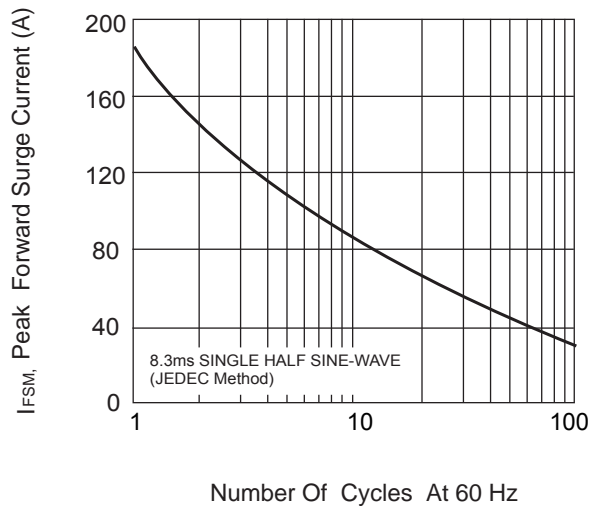


Fig.4 Typical Reverse Characteristics

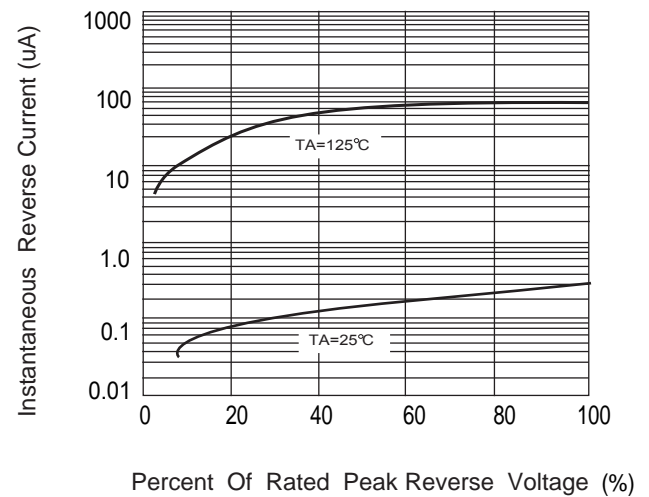


Fig.5 Typical Junction Capacitance

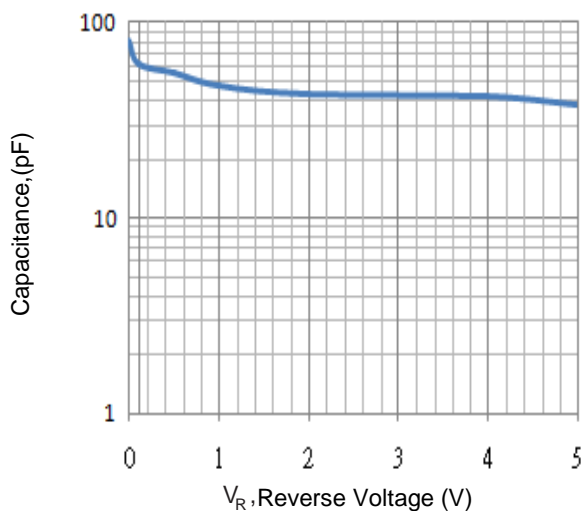
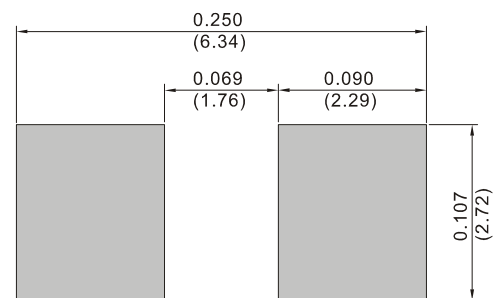


Fig.6 Mounting PAD Layout





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