

# S5A-AU SERIES

## SURFACE MOUNT RECTIFIER

**VOLTAGE** 50~1000 Volt **CURRENT** 5 Ampere

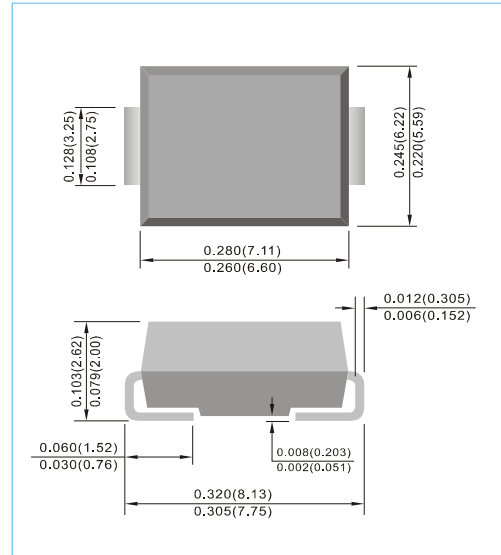
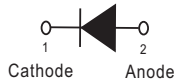
**SMC / DO-214AB** Unit : inch(mm)

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications in order to optimize board space
- Easy pick and place
- Glass passivated junction
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard
- AEC-Q101 qualified

### MECHANICAL DATA

- Case: JEDEC SMC /DO-214AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: Color band denotes cathode end
- Standard packaging: 16mm tape (EIA-481)
- Weight: 0.0082 ounces, 0.23 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

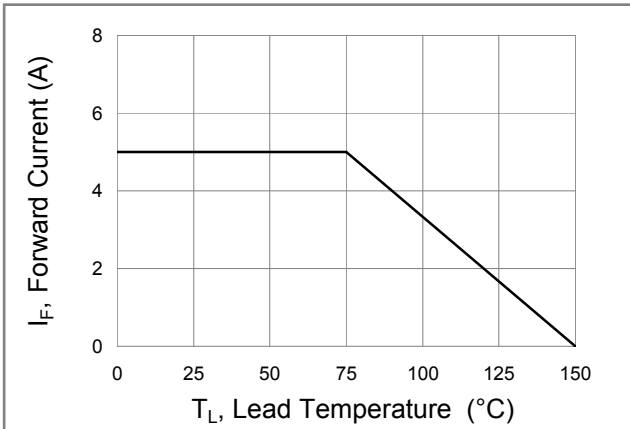
Ratings at 25°C ambient temperature unless otherwise specified. Single phase , half wave ,60Hz, resistive or inductive load.  
 For capacitive load , derate current by 20%.

PARAMETER	SYMBOL	S5A-AU	S5B-AU	S5D-AU	S5G-AU	S5J-AU	S5M-AU	UNIT	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	1000	V	
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	700	V	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	1000	V	
Maximum Average Forward Rectified Current	$I_{F(AV)}$	5						A	
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	275						A	
Rating for Fusing (t<8.3ms)	$I^2t$	313						A <sup>2</sup> sec	
Maximum Forward Voltage at 5A	$V_F$	1.1						V	
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^{\circ}C$ $T_J=125^{\circ}C$	$I_R$	10 250						$\mu A$	
Typical Junction Capacitance (NOTES 1)	$C_J$	80						46	pF
Typical Junction Resistance (NOTES 2)	$R_{\theta JA}$ $R_{\theta JL}$	75 10						$^{\circ}C / W$	
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150						$^{\circ}C$	

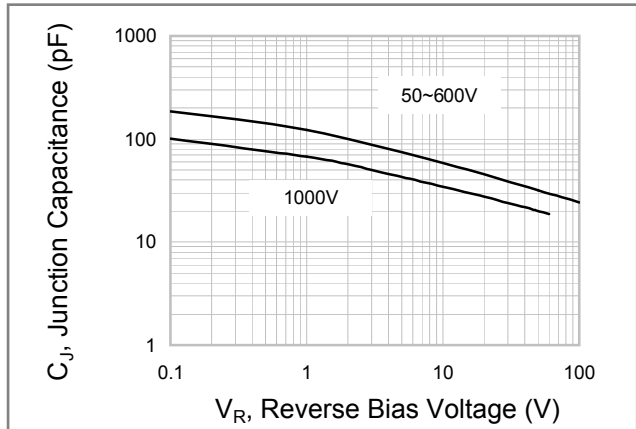
**NOTES :**

1. Measured at 1 MHz and applied Vr=4 volts.
2. 8mm<sup>2</sup> (0.013mm thick)land areas.

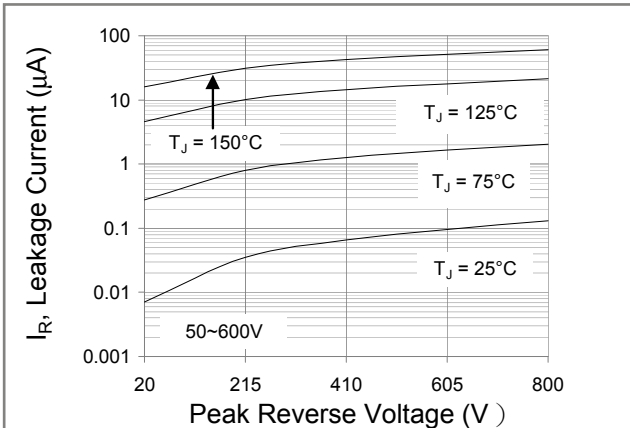
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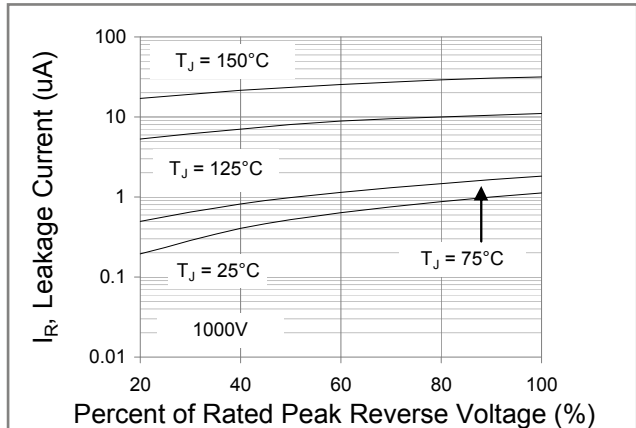
**Fig.1 Forward Current Derating Curve**



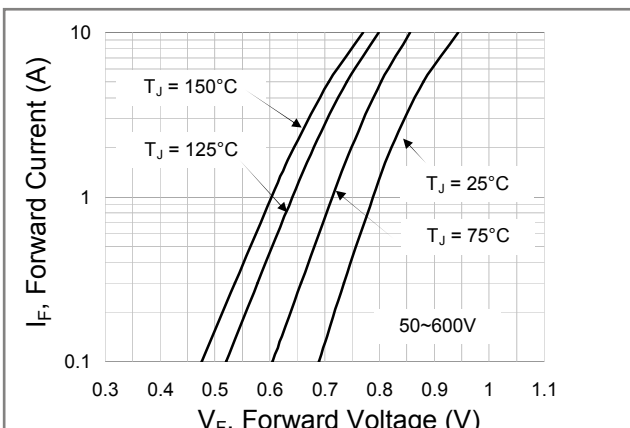
**Fig.2 Typical Junction Capacitance**



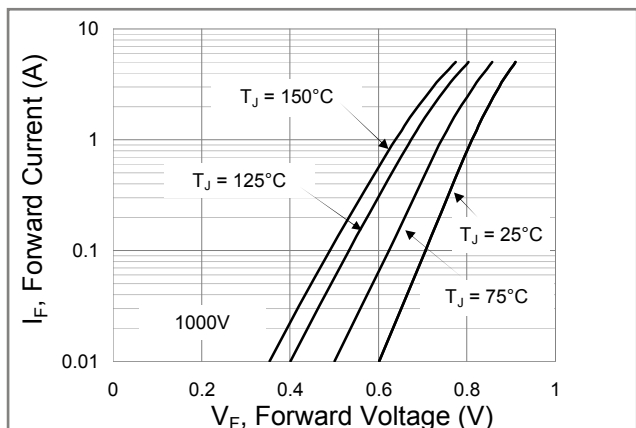
**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Reverse Characteristics**



**Fig.5 Typical Forward Characteristics**



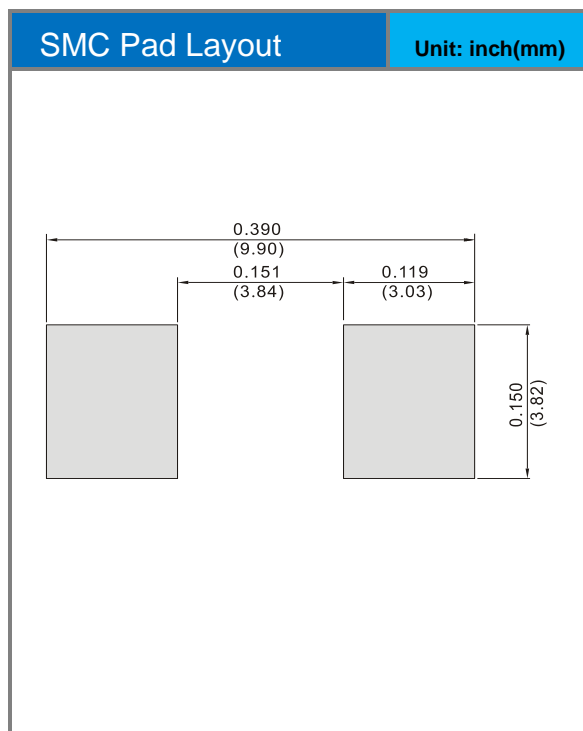
**Fig.6 Typical Forward Characteristics**

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## Product and Packing Information

Part No.	Package Type	Packing Type	Marking
S5A-AU	SMC	0.8K pcs / 7" reel	S5A
S5A-AU	SMC	3K pcs / 13" reel	S5A
S5B-AU	SMC	0.8K pcs / 7" reel	S5B
S5B-AU	SMC	3K pcs / 13" reel	S5B
S5D-AU	SMC	0.8K pcs / 7" reel	S5D
S5D-AU	SMC	3K pcs / 13" reel	S5D
S5G-AU	SMC	0.8K pcs / 7" reel	S5G
S5G-AU	SMC	3K pcs / 13" reel	S5G
S5J-AU	SMC	0.8K pcs / 7" reel	S5J
S5J-AU	SMC	3K pcs / 13" reel	S5J
S5M-AU	SMC	0.8K pcs / 7" reel	S5M
S5M-AU	SMC	3K pcs / 13" reel	S5M

## Mounting Pad Layout



## S5A-AU SERIES

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