



# S5A-AU SERIES

## SURFACE MOUNT RECTIFIER

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

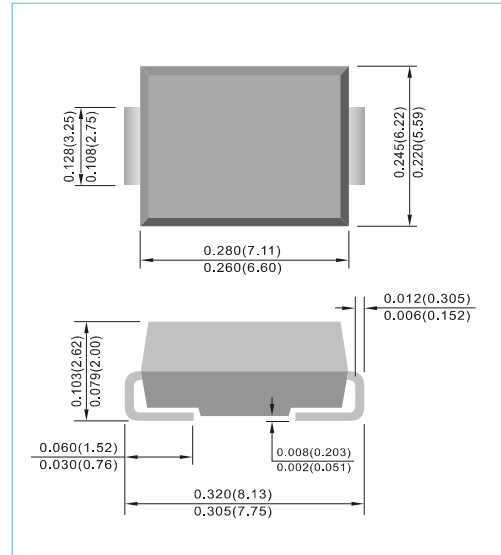
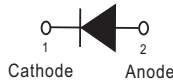
**SMC / DO-214AB** Unit : inch(mm)

### 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%.

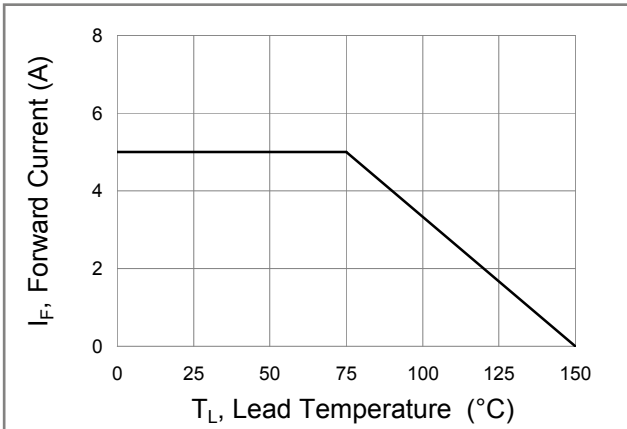
| PARAMETER  | SYMBOL                             | S5A-AU      | S5B-AU | S5D-AU | S5G-AU | S5J-AU | S5M-AU | UNITS              |    |
|--|------------------------------------|-------------|--------|--------|--------|--------|--------|--------------------|----|
| Maximum Recurrent Peak Reverse Voltage   | $V_{RRM}$                          | 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<br>$T_J=25^{\circ}C$<br>$T_J=125^{\circ}C$ | $I_R$                              | 10<br>250   |        |        |        |        |        | $\mu A$            |    |
| Typical Junction Capacitance (NOTES 1)   | $C_J$                              | 80          |        |        |        |        |        | 46                 | pF |
| Typical Junction Resistance (NOTES 2)  | $R_{\theta JA}$<br>$R_{\theta JL}$ | 75<br>10    |        |        |        |        |        | $^{\circ}C / W$    |    |
| Operating Junction and Storage Temperature Range   | $T_J, T_{STG}$                     | -55 to +150 |        |        |        |        |        | $^{\circ}C$        |    |

**NOTES :**

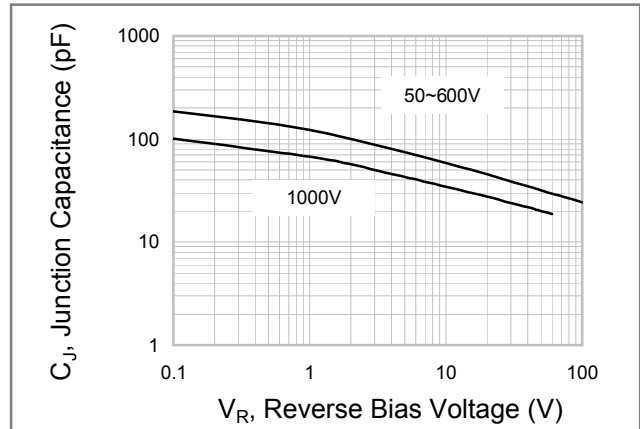
1. Measured at 1 MHz and applied  $V_r=4$  volts.
2.  $8mm^2$  (0.013mm thick) land areas.



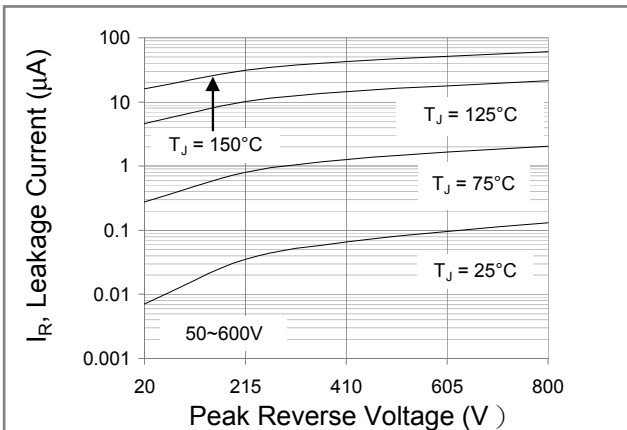
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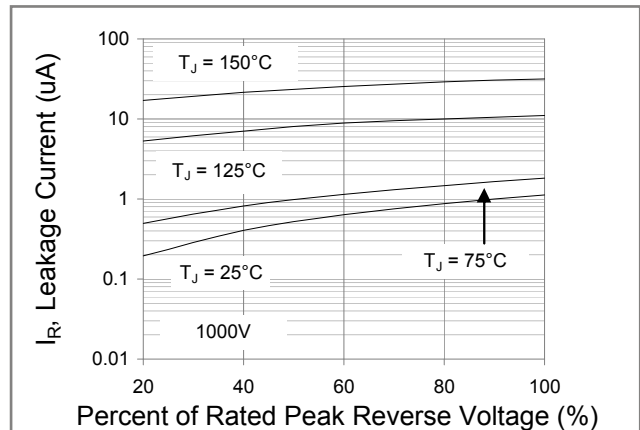
**Fig.1 Forward Current Derating Curve**



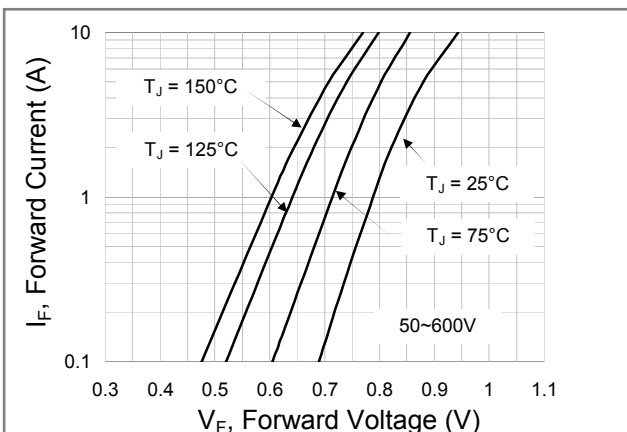
**Fig.2 Typical Junction Capacitance**



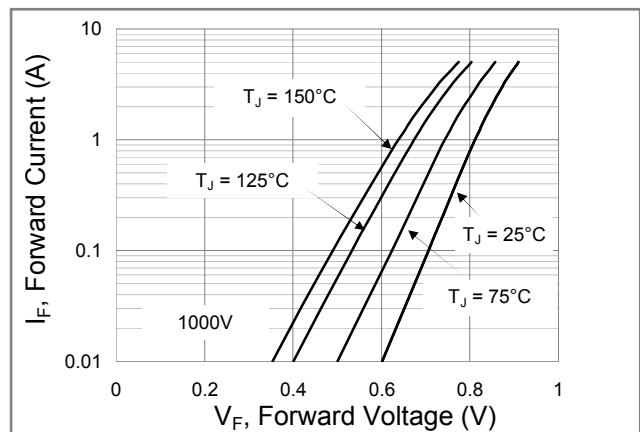
**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Reverse Characteristics**



**Fig.5 Typical Forward Characteristics**

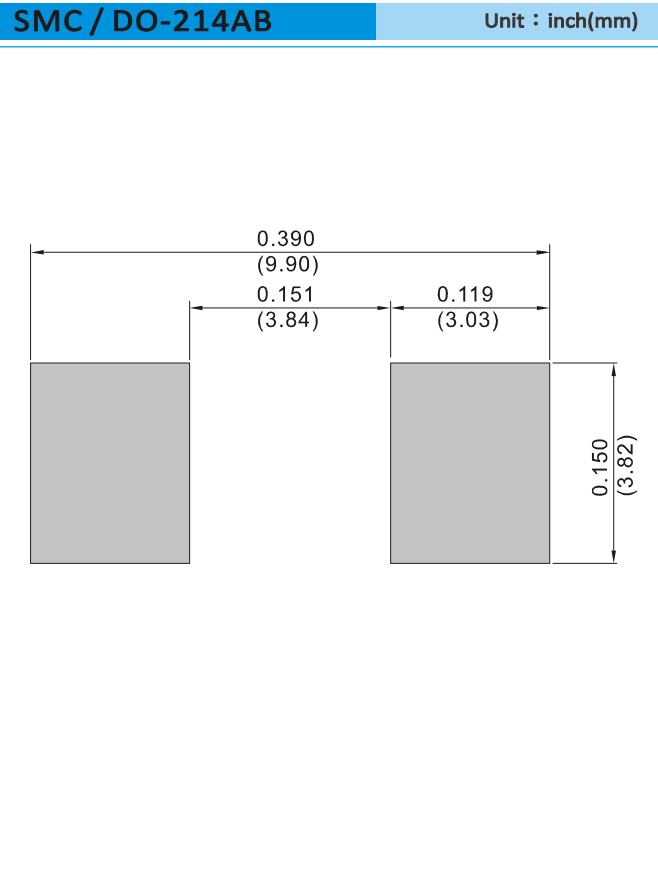


**Fig.6 Typical Forward Characteristics**



# S5A-AU SERIES

## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information  
T/R - 3K per 13" plastic Reel  
T/R - 0.8K per 7" plastic Reel



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## Part No\_packing code\_Version

S5A-AU\_R1\_000A1

S5A-AU\_R2\_000A1

For example :

**RB500V-40** **R2** **00001**



| Packing Code <b>XX</b>               |                      |                                  |                      | Version Code <b>XXXXX</b> |                      |                                       |
|--------------------------------------|----------------------|----------------------------------|----------------------|---------------------------|----------------------|---------------------------------------|
| Packing type                         | 1 <sup>st</sup> Code | Packing size code                | 2 <sup>nd</sup> Code | HF or RoHS                | 1 <sup>st</sup> Code | 2 <sup>nd</sup> ~5 <sup>th</sup> Code |
| Tape and Ammunition Box (T/B)        | A                    | N/A                              | 0                    | HF                        | 0                    | serial number                         |
| Tape and Reel (T/R)                  | R                    | 7"                               | 1                    | RoHS                      | 1                    | serial number                         |
| Bulk Packing (B/P)                   | B                    | 13"                              | 2                    |                           |                      |                                       |
| Tube Packing (T/P)                   | T                    | 26mm                             | X                    |                           |                      |                                       |
| Tape and Reel (Right Oriented) (TRR) | S                    | 52mm                             | Y                    |                           |                      |                                       |
| Tape and Reel (Left Oriented) (TRL)  | L                    | PANASERT T/B CATHODE UP (PBCU)   | U                    |                           |                      |                                       |
| FORMING                              | F                    | PANASERT T/B CATHODE DOWN (PBCD) | D                    |                           |                      |                                       |



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