

# SDB14FW-AH

## Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 40 V

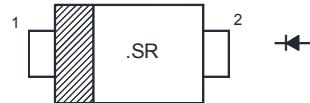
Forward Current - 1 A

### Features

- AEC-Q101 Qualified
- Halogen and Antimony Free(HAF),  
RoHS compliant

### PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | Cathode     |
| 2   | Anode       |



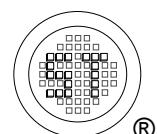
Top View  
Marking Code:.SR  
Simplified outline SOD-123FL and symbol

### Absolute Maximum Ratings and Characteristics

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

| Parameter   | Symbols         | Value         | Units         |
|---|-----------------|---------------|---------------|
| Maximum Recurrent Peak Reverse Voltage  | $V_{RRM}$       | 40            | V             |
| Maximum Average Forward Rectified Current   | $I_{F(AV)}$     | 1             | A             |
| Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) | $I_{FSM}$       | 40            | A             |
| Maximum Forward Voltage at $I_F = 1$ A  | $V_F$           | 0.53          | V             |
| Maximum Reverse Current at $V_R = 40$ V   | $I_R$           | 30            | $\mu$ A       |
| Typical Thermal Resistance, Junction to Ambient <sup>1)</sup>                                     | $R_{\theta JA}$ | 220           | $^{\circ}C/W$ |
| Typical Thermal Resistance, Junction to Lead <sup>1)</sup>  | $R_{\theta JL}$ | 50            | $^{\circ}C/W$ |
| Operating and Storage Temperature Range   | $T_j, T_{stg}$  | - 40 to + 150 | $^{\circ}C$   |

<sup>1)</sup> Mounted on 15 mm X 50 mm pad layout.



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## Electrical Characteristics Curves

Fig 1. Reverse Characteristic Curve

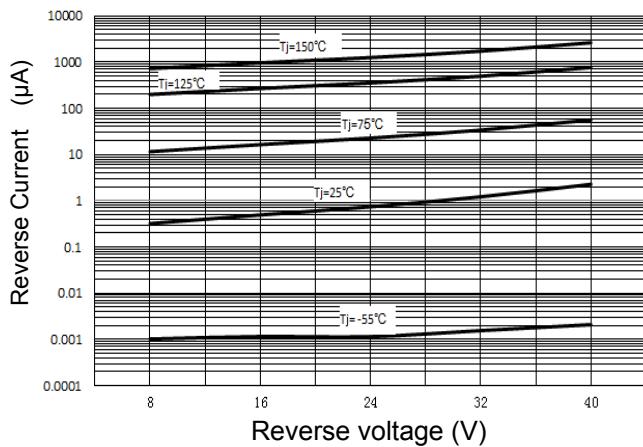


Fig 2. Forward Characteristic Curve

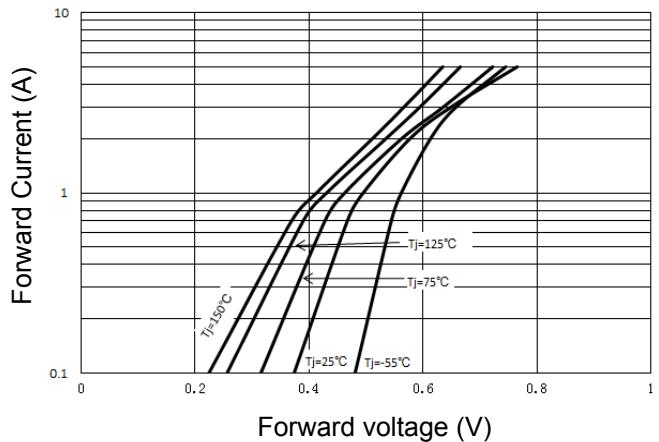
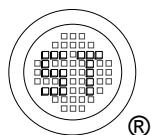
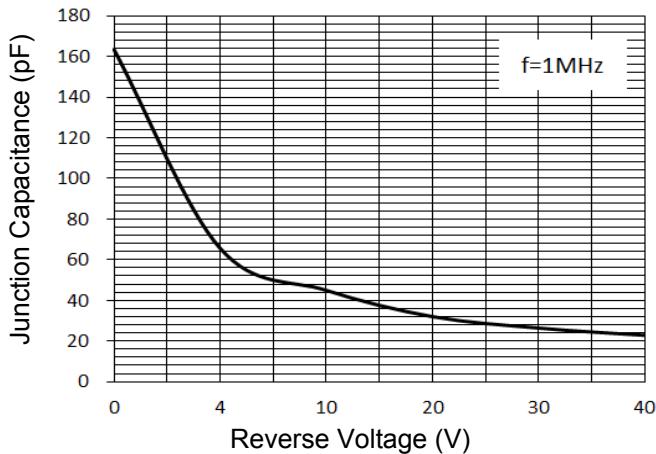


Fig 3. Junction Capacitance

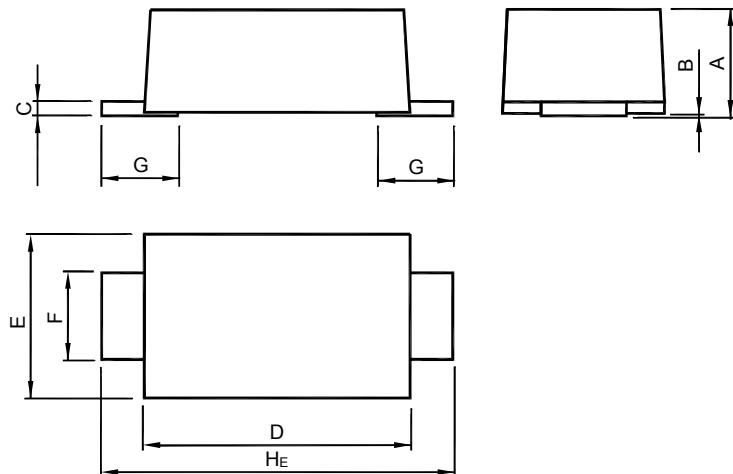


# SDB14FW-AH

## PACKAGE OUTLINE

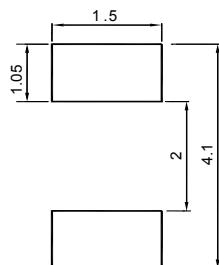
Plastic surface mounted package; 2 leads

SOD-123FL



| UNIT | A    | B   | C   | D   | E   | F   | G    | H <sub>E</sub> |
|------|------|-----|-----|-----|-----|-----|------|----------------|
| mm   | 1.08 | 0.1 | 0.2 | 2.9 | 1.9 | 1.1 | 0.85 | 3.9            |
|      | 0.88 | 0   | 0.1 | 2.7 | 1.7 | 0.8 | 0.45 | 3.5            |

## Recommended Soldering Footprint



## Packing information

| Package   | Tape Width<br>(mm) | Pitch   |               | Reel Size |      | Per Reel Packing Quantity |
|-----------|--------------------|---------|---------------|-----------|------|---------------------------|
|           |                    | mm      | inch          | mm        | inch |                           |
| SOD-123FL | 8                  | 4 ± 0.1 | 0.157 ± 0.004 | 178       | 7    | 3,000                     |

## Marking information

" ||| " = Cathode line

" • " = HAF (Halogen and Antimony Free)

" SR " = Part No.

Font type: Arial

