

# Schottky Barrier Rectifier 1A 30V SOD-123

SS1030

MERITEK

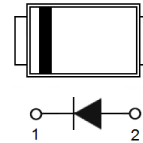
## FEATURES

- High conductor
- Fast Switching Speed



## MECHANICAL DATA

- Case: Molded Plastic, SOD-123 Package
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026
- Polarity: Color Band Denotes Cathode End



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

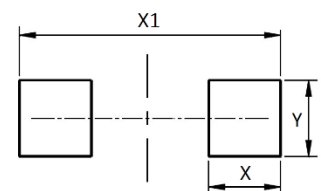
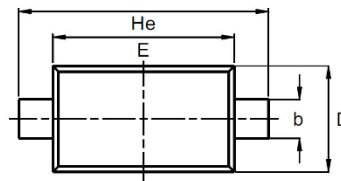
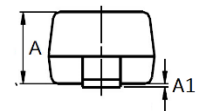
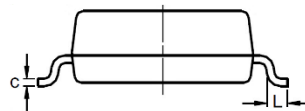
| Parameter                                                    |                     | Symbol          | Value       | Unit          |
|--------------------------------------------------------------|---------------------|-----------------|-------------|---------------|
| Maximum Recurrent Peak Reverse Voltage                       |                     | $V_{RRM}$       | 30          | V             |
| Maximum RMS Voltage                                          |                     | $V_{RMS}$       | 21          | V             |
| Maximum DC Blocking Voltage                                  |                     | $V_{DC}$        | 30          | V             |
| Maximum Average Forward Rectified Current                    |                     | $I_{F(AV)}$     | 1           | A             |
| Peak Forward Surge Current, 8.3ms single half sine wave      |                     | $I_{FSM}$       | 30          | A             |
| Maximum Forward Voltage                                      | $I_F=1A$            | $V_F$           | 0.48        | V             |
| Maximum Reverse Current                                      | $V_R=15V$           | $I_R$           | 20          | $\mu A$       |
|                                                              | $V_R=30V$           |                 | 50          |               |
| Typical Thermal Resistance                                   | Junction to Ambient | $R_{\theta JA}$ | 380         | $^{\circ}C/W$ |
| Typical Thermal Resistance                                   | Junction to Lead    | $R_{\theta JL}$ | 200         |               |
| Operating Junction Temperature and Storage Temperature Range |                     | $T_J, T_{STG}$  | -55 to +125 | $^{\circ}C$   |

Note:

1. Mounted on a FR4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area.
2. Mounted on a FR4 PCB, single-sided copper, mini pad.

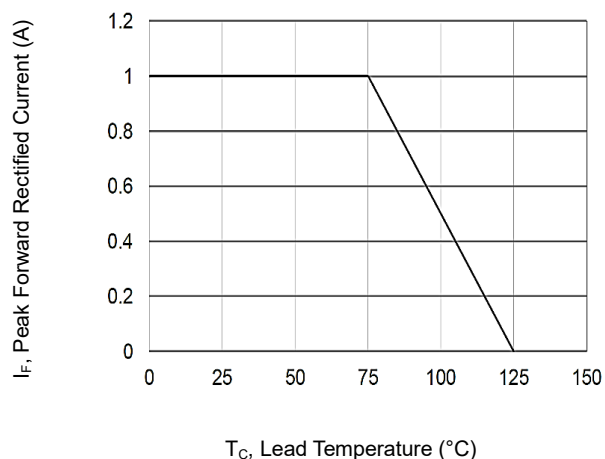
## DIMENSIONS

| SOD-123 | Min. (mm) | Max. (mm) |
|---------|-----------|-----------|
| A       | 0.95      | 1.35      |
| A1      | 0.00      | 0.12      |
| b       | 0.50      | 0.70      |
| c       | 0.00      | 0.20      |
| D       | 1.40      | 1.80      |
| E       | 2.50      | 2.80      |
| He      | 3.60      | 3.90      |
| L       | 0.40      | --        |
| X       | 0.97      |           |
| X1      | 4.25      |           |
| Y       | 1.22      |           |

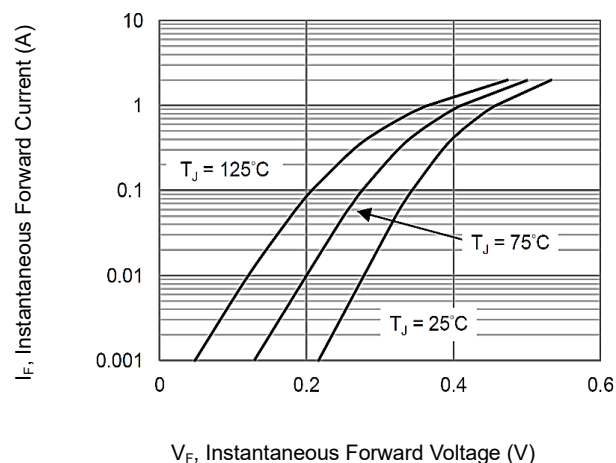


### CHARACTERISTIC CURVES

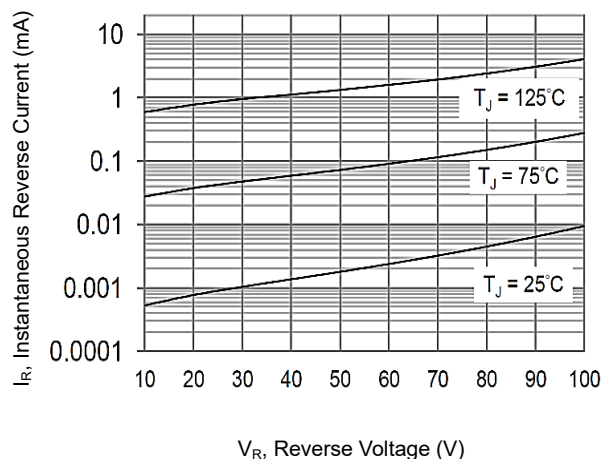
Typical Forward Current Derating Curve



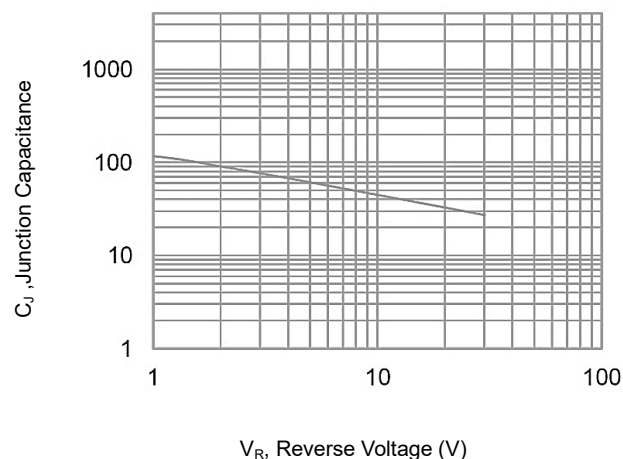
Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



Operating Temperature Derating Curve

