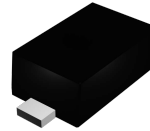


## Features

- Low current rectification
- Low forward voltage
- SOD523 micro SMD package
- RoHS compliant
- UL-94 V-0 / Green EMC
- Matte tin lead finish (Pb-Free)



SOD-523



Schematic Diagram

## Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

| Parameter                                        | Symbol           | Value       | Units |
|--------------------------------------------------|------------------|-------------|-------|
| Repetitive Peak Reverse Voltage                  | V <sub>RRM</sub> | 30          | V     |
| Working Peak Reverse Voltage                     | V <sub>RWM</sub> | 30          | V     |
| Continuous Forward Current                       | I <sub>O</sub>   | 200         | mA    |
| Non-Repetitive Peak Forward Current <sup>1</sup> | I <sub>FSM</sub> | 1           | A     |
| Junction Temperature                             | T <sub>J</sub>   | -55 to +125 | °C    |
| Storage Temperature                              | T <sub>STG</sub> | -55 to +125 | °C    |

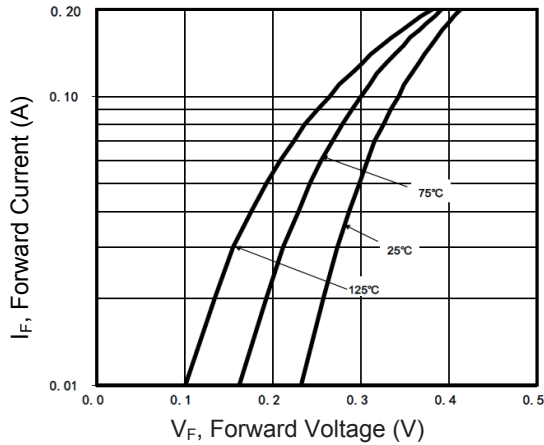
Note:

1. 8.3mS single half sine-wave.

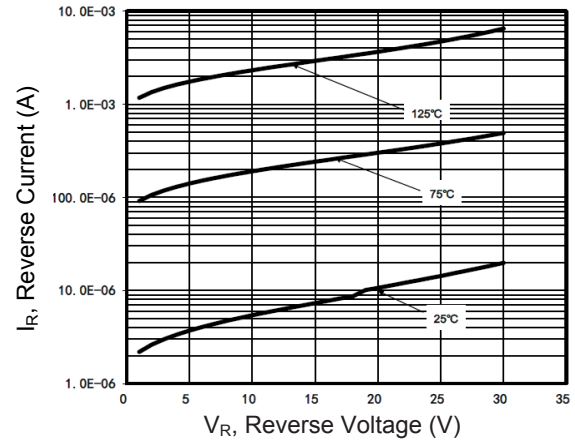
## Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise specified)

| Parameter         | Symbol          | Conditions            | Min | Typ | Max  | Unit |
|-------------------|-----------------|-----------------------|-----|-----|------|------|
| Forward Voltage   | V <sub>F</sub>  | I <sub>F</sub> =10mA  | -   | -   | 0.35 | V    |
|                   |                 | I <sub>F</sub> =200mA | -   | -   | 0.5  |      |
| Breakdown Voltage | BV <sub>R</sub> | I <sub>R</sub> =500uA | 30  | -   | -    | V    |
| Reverse Current   | I <sub>R</sub>  | V <sub>R</sub> =10V   | -   | -   | 30   | uA   |
|                   |                 | V <sub>R</sub> =20V   | -   | -   | 100  |      |

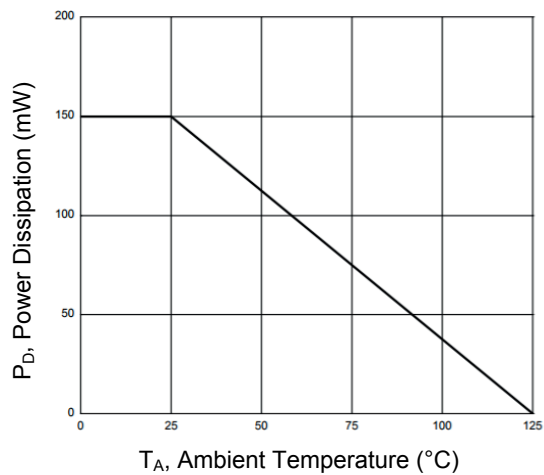
## Typical Electrical Characteristic Curves



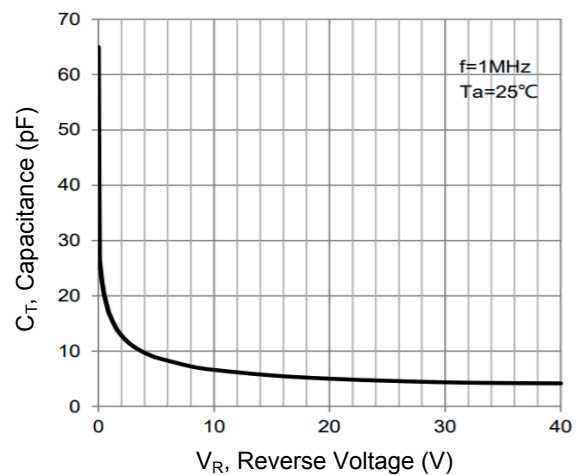
**Figure 1. Forward Characteristics**



**Figure 2. Reverse Characteristics**

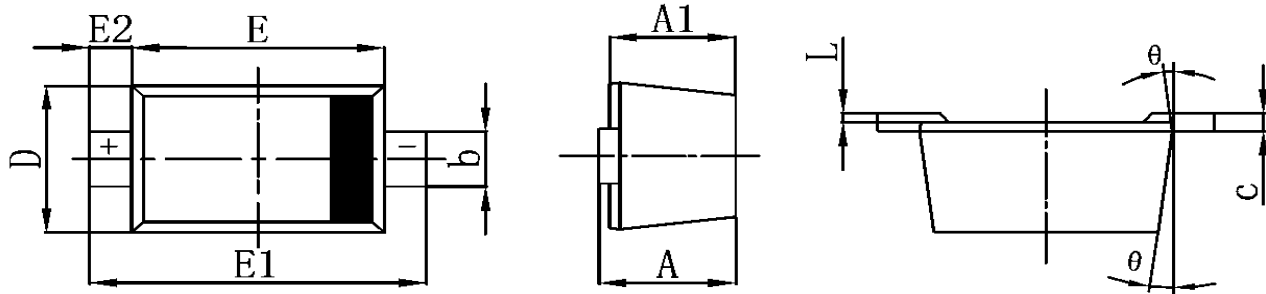


**Figure 3. Power Derating Curve**



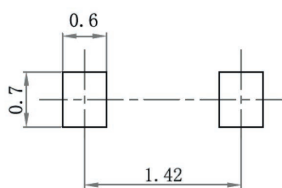
**Figure 4. Capacitance Characteristics**

## Package Outline Dimensions (SOD-523)



| Symbol   | Dimensions In Millimeters |       | Dimensions In Inches |       |
|----------|---------------------------|-------|----------------------|-------|
|          | Min                       | Max   | Min                  | Max   |
| A        | 0.510                     | 0.770 | 0.020                | 0.031 |
| A1       | 0.500                     | 0.700 | 0.020                | 0.028 |
| b        | 0.250                     | 0.350 | 0.010                | 0.014 |
| c        | 0.080                     | 0.150 | 0.003                | 0.006 |
| D        | 0.750                     | 0.850 | 0.030                | 0.033 |
| E        | 1.100                     | 1.300 | 0.043                | 0.051 |
| E1       | 1.500                     | 1.700 | 0.059                | 0.067 |
| E2       | 0.200 REF                 |       | 0.008 REF            |       |
| L        | 0.010                     | 0.070 | 0.001                | 0.003 |
| $\theta$ | 7° REF                    |       | 7° REF               |       |

## Recommended Pad Layout



Note:

1. Controlling dimension: in millimeters
2. General tolerance:  $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

## Order Information

| Device    | Package | Marking | Carrier     | Quantity        |
|-----------|---------|---------|-------------|-----------------|
| GSK02V530 | SOD-523 | C       | Tape & Reel | 8,000pcs / Reel |

For more information, please contact us at: [inquiry@goodarksemi.com](mailto:inquiry@goodarksemi.com)