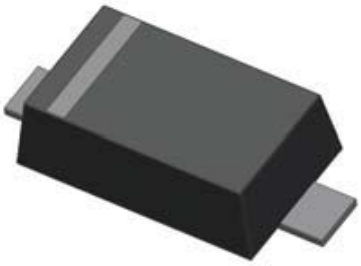
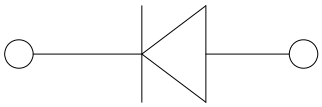
# Small-Signal Fast Switching Diodes





## Features

- VR 75V
- $I_F$AV 200mA

## Typical Applications

- Fast Switching Speed

## Mechanical Data

- **Package**: SOD523
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** S1

## ■Maximum Ratings (Ta=25℃ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | Conditions | VALUE |
|---|---|---|---|---|
| Repetitive peak reverse voltage | $V_{RRM}$ | V | | 75 |
| Reverse voltage | $V_R$ | V | IR=100uA | 75 |
| Peak forward surge current | $I_{FSM}$ | A | Pulse width=1ms | 1 |
| Average forward current | $I_{FAV}$ | mA | | 200 |
| Power dissipation | $P_{tot}$ | mW | | 200 |
| Maximum junction temperature | $T_j$ | ℃ | | 150 |
| Storage temperature range | $T_{stg}$ | ℃ | | -55 to +150 |

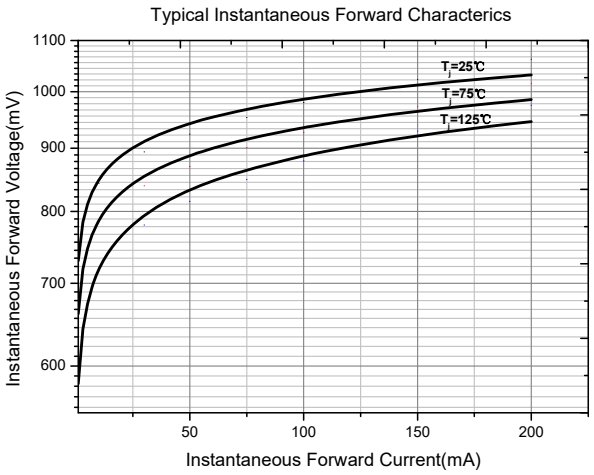
## ■Electrical Characteristics (Ta=25℃ Unless otherwise specified)

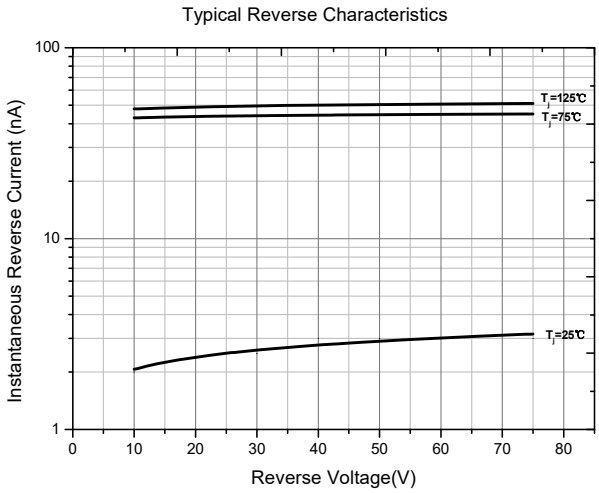
| PARAMETER | Symbol | UNIT | Conditions | Min | Max |
|---|---|---|---|---|---|
| Breakdown Voltage | $V_R$ | V | IR=100uA | 75 | |
| Forward Voltage | $V_F$ | V | IF=1mA | | 0.9 |
| | | | IF=10mA | | 1.0 |
| | | | IF=50mA | | 1.1 |
| | | | IF=150mA | | 1.25 |
| Reverse Leakage Current | $I_R$ | nA | VR=75V | | 5 |
| Capacitance | C | pF | VR=0V,f=1MHz | | 2 |
| Reverse Recovery Time | Trr | us | IF=IR=10mA，Irr=0.1*IR, RL=100Ω | | 3 |

## ■Ordering Information (Example)

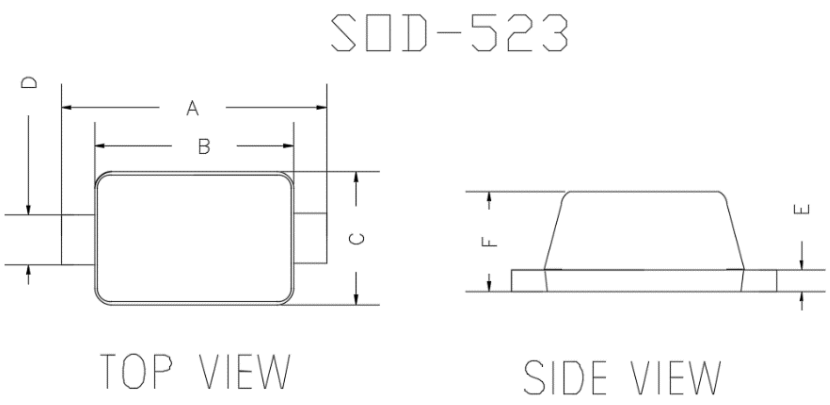
| PREFERED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---|---|---|---|---|---|---|
| **BAS716** | F2 | Approximate 0.002 | 8000 | 80000 | 320000 | 7” reel |

## ■ Characteristics (Typical)



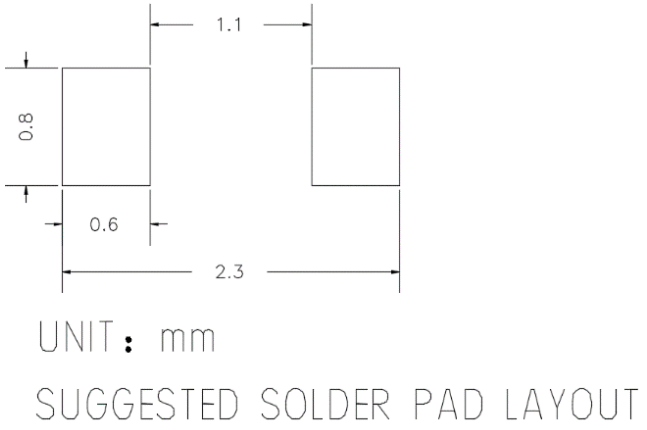



## ■ Outline Dimensions




| DIMENSIONS | | | | |
|---|---|---|---|---|
| DIM | INCHES | | MM | |
| | MIN | MAX | MN | MAX |
| A | 0.059 | 0.067 | 1.500 | 1.700 |
| B | 0.043 | 0.051 | 1.100 | 1.300 |
| C | 0.028 | 0.035 | 0.700 | 0.900 |
| D | 0.010 | 0.014 | 0.250 | 0.350 |
| E | 0.002 | 0.008 | 0.050 | 0.200 |
| F | 0.020 | 0.028 | 0.500 | 0.700 |

## ■ Soldering Footprint



## Notice

All products, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.

Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in STARSEA's terms and conditions of sale for such products, STARSEA assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of STARSEA products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.