

# SD103AWS THRU SD103CWS

**VOLTAGE RANGE**  
**CURRENT**

**20 to 40 Volts**  
**1.5 Ampere**

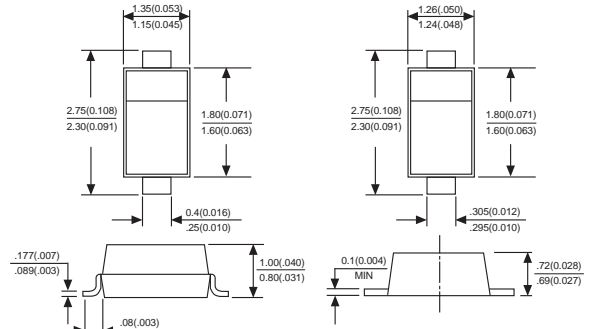
### FEATURES

- Low forward voltage drop
- Guard ring construction for transient protection
- Negligible reverse recovery time  
low reverse capacitance

### MECHANICAL DATA

- Case : Molded plastic body
- Terminals : Plated leads solderable per MIL-STD-750, Method 2026
- Polarity : Polarity symbols marked on case
- Mounting Position: Any
- Marking : SD103AWS:S4, SD103BWS:S5, SD103CWS:S6

### SOD-323



Dimensions in millimeters and (inches)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Maximum ratings and electrical characteristics, Single diode @ $T_A=25^{\circ}\text{C}$

| PARAMETER                                       | SYMBOLS         | SD103AWS | SD103BWS    | SD103CWS | UNITS                       |
|---|-----------------|----------|-------------|----------|-----------------------------|
| Peak repetitive peak reverse voltage            | $V_{RRM}$       |          |             |          | VOLTS                       |
| Working peak reverse voltage                    | $V_{RMS}$       | 40       | 30          | 20       |                             |
| DC Blocking voltage                             | $V_{DC}$        |          |             |          |                             |
| RMS Reverse voltage                             | $V_{R(RMS)}$    | 28       | 21          | 14       | V                           |
| Forward continuous current                      | $I_{FM}$        |          | 350         |          | mA                          |
| Repetitive peak forward current @ $t \leq 1.0s$ | $I_{FRM}$       |          | 1.5         |          | A                           |
| Power dissipation                               | $P_d$           |          | 200         |          | mW                          |
| Thermal resistance junction to ambient          | $R_{\theta JA}$ |          | 300         |          | $^{\circ}\text{C}/\text{W}$ |
| Storage temperature                             | $T_{STG}$       |          | -65 to +125 |          | $^{\circ}\text{C}$          |

- Electrical ratings @ $T_A=25^{\circ}\text{C}$

| PARAMETER                     | SYMBOLS                          | Min.           | Typ. | Max.         | Unit          | Conditions  |
|-------------------------------|----------------------------------|----------------|------|--------------|---------------|---|
| Reverse breakdown voltage     | SD103AWS<br>SD103BWS<br>SD103CWS | 40<br>30<br>20 |      |              | v             | $I_R=10\mu\text{A}$<br>$I_R=10\mu\text{A}$<br>$I_R=10\mu\text{A}$ |
| Forward voltage               | $V_F$                            |                |      | 0.37<br>0.60 | v             | $I_F=20\text{mA}$<br>$I_F=200\text{mA}$                           |
| Reverse current               | SD103AWS<br>SD103BWS<br>SD103CWS |                |      | 5.0          | $\mu\text{A}$ | $V_R=30\text{V}$<br>$V_R=20\text{V}$<br>$V_R=10\text{V}$          |
| Capacitance between terminals | $C_T$                            |                | 50   |              | pF            | $V_R=0\text{V}, f=1.0\text{MHz}$                                  |
| Reverse recovery time         | $t_{rr}$                         |                | 10   |              | ns            | $I_F=I_R=200\text{mA}$<br>$I_{rr}=0.1X I_R, R_L=100\Omega$        |

FIG. 1- TYPICAL FORWARD CHARACTERISTICS

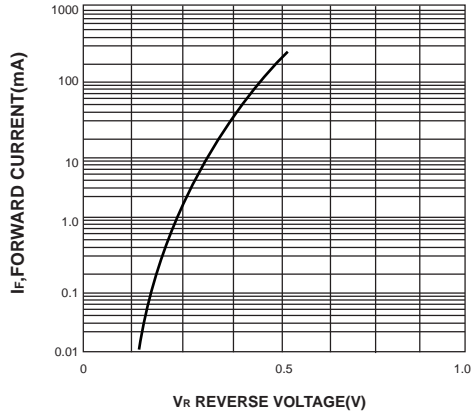


FIG. 2-TYP. JUNCTION CAPACITANCE VS REVERSE VOLTAGE

