

SCHOTTKY DIODES

SD1030AW THRU SD1030CW

VOLTAGE RANGE
CURRENT

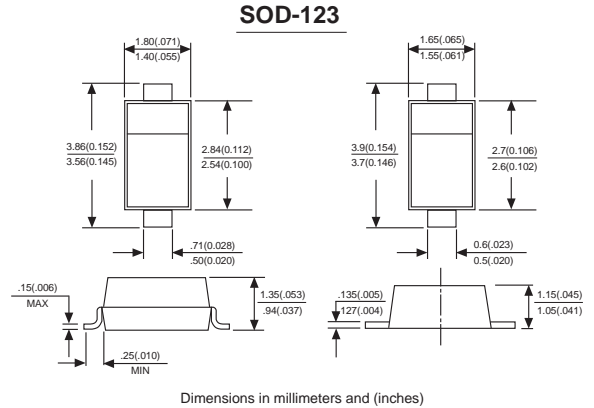
20 to 40 Volts
1.5 Ampere

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 : SD103AW:S4, SD103BW:S5, SD103CW:S6



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| PARAMETER | SYMBOLS | SD103AW | SD103BW | SD103CW | UNITS |
|---|-----------------|---------|-------------|---------|---------------------------|
| Peak repetitive peak reverse voltage | V_{RRM} | | | | VOLTS |
| Working peak reverse voltage | V_{RWM} | 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 | | 400 | | 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 | SD103AW SD103BW SD103CW | 40 30 20 | | | V | $I_R=100\mu\text{A}$ $I_R=100\mu\text{A}$ $I_R=100\mu\text{A}$ |
| Forward voltage | V_F | | | 0.37 0.60 | V | $I_F=20\text{mA}$ $I_F=200\text{mA}$ |
| Reverse current | SD103AW SD103BW SD103CW | | | 5.0 | μA | $V_R=30\text{V}$ $V_R=20\text{V}$ $V_R=10\text{V}$ |
| Capacitance between terminals | C_T | | 50 | | pF | $V_R=0\text{V}, f=1.0\text{MHz}$ |
| Reverse recovery time | t_{rr} | | 10 | | ns | $I_F=I_R=200\text{mA}$ $I_{rr}=0.1 I_R, R_L=100\Omega$ |



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FIG. 1- TYPICAL FORWARD CHARACTERISTICS

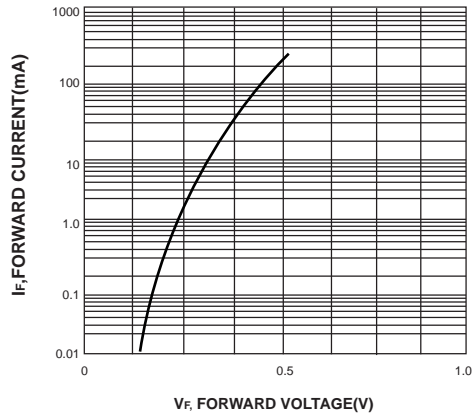


FIG. 2-TYP. JUNCTION CAPACITANCE VS REVERSE VOLTAGE

