



SD103AW THRU SD103CW

Schottky Barrier Switching Diode



Voltage Range
20 to 40 Volts
400m Watts Power Dissipation

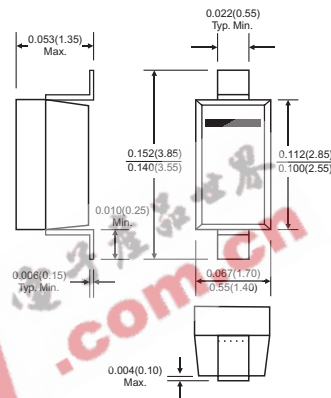
Features

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

Mechanical Data

- ✧ Case: SOD-123, plastic
- ✧ Polarity: Cathode band
- ✧ Terminals: Solderable per MIL-STD-202, Method 208
- ✧ Marking: Date Code and Type Code or Date Code only
 - Type Code: SD103AW S4
 - SD103BW S5
 - SD103CW S6
- ✧ Weight: 0.01 grams (approx.)

SOD-123



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Maximum Ratings

| Type Number | Symbol | SD103AW | SD103BW | SD103CW | Units |
|--|-----------------|--------------|---------|---------|-------|
| Peak Repetitive Reverse Voltage | V_{RRM} | | | | |
| Working Peak Reverse Voltage | V_{RWM} | 40 | 30 | 20 | V |
| DC Blocking Voltage | V_R | | | | |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 28 | 21 | 14 | V |
| Forward Continuous Current (Note 1) | I_{FM} | 350 | | | mA |
| Non-repetitive Peak Forward Surge Current @ $t \leq 1.0s$ | I_{FSM} | 1.5 | | | A |
| Power Dissipation (Note 1) | P_d | 400 | | | mW |
| Thermal Resistance Junction to Ambient Air (Note 1) | $R_{\theta JA}$ | 300 | | | °C/W |
| Operating and Storage Temperature Range | T_J, T_{STG} | -65 to + 125 | | | °C |

Electrical Characteristics

| Type Number | Symbol | Min | Typ | Max | Units |
|--|------------|----------------|-----|--------------|---------|
| Reverse Breakdown Voltage (Note 2) SD103AW $I_R=100\mu A$ SD103BW $I_R=100\mu A$ SD103CW $I_R=100\mu A$ | $V_{(BR)}$ | 40 30 20 | - | - | V |
| Peak Reverse Current SD103AW $V_R=30V$ SD103BW $V_R=20V$ SD103CW $V_R=10V$ | I_R | - | - | 5.0 | μA |
| Forward Voltage Drop | V_F | - | - | 0.37 0.60 | V |
| Junction Capacitance $V_R=0, f=1.0MHz$ | C_j | - | 50 | - | Pf |
| Reverse Recovery Time $I_F=I_R=200mA$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$ | t_{rr} | - | 10 | - | nS |

Notes: 1. Valid Provided that Terminals are Kept at Ambient Temperature.

2. Pulse Test: Pulse width = 300 μS , Duty cycle $\leq 2\%$.

RATINGS AND CHARACTERISTIC CURVES (SD103AW - SD103CW)

