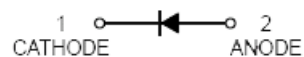


Schottky Barrier Diode



SOD-123

Features:

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Reverse Capacitance

Applications:

Schottky barrier switching

Maximum Rating @ T_A = 25°C unless otherwise specified

| Parameter | Symbol | SD103CW-13-F | Unit |
|--|---------------------------------|--------------|------|
| Peak repetitive peak reverse voltage Working peak DC reverse voltage | V_{RRM} V_{RWM} V_R | 20 | V |
| RMS reverse voltage | $V_{R(RMS)}$ | 14 | V |
| Forward continuous current | I_F | 350 | mA |
| Repetitive peak forward current @ t < 1s | I_{FRM} | 1.5 | A |
| Power dissipation | P_D | 400 | mW |
| Thermal resistance junction to ambient | $R_{\theta JA}$ | 300 | °C/W |
| Storage temperature | T_{stg} | -65 to +125 | °C |



Schottky Barrier Diode



Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|-------------------------------|-------------|------|------|--------------|---------------|---|
| Reverse breakdown voltage | $V_{(BR)R}$ | 20 | | | V | $I_R = 10\mu\text{A}$ |
| Forward voltage | V_F | | | 0.37 0.60 | V | $I_F = 20\text{mA}$ $I_F = 200\text{mA}$ |
| Reverse current | I_{RM} | | | 5 | μA | $V_R = 10\text{V}$ |
| Capacitance between terminals | C_T | | 50 | | pF | $V_R = 0, f = 1\text{MHz}$ |
| Reverse recovery time | t_{rr} | | 10 | | ns | $I_R = I_F = 200\text{mA}$ $I_{rr} = 0.1 * I_R, R_L = 100\Omega$ |

Typical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

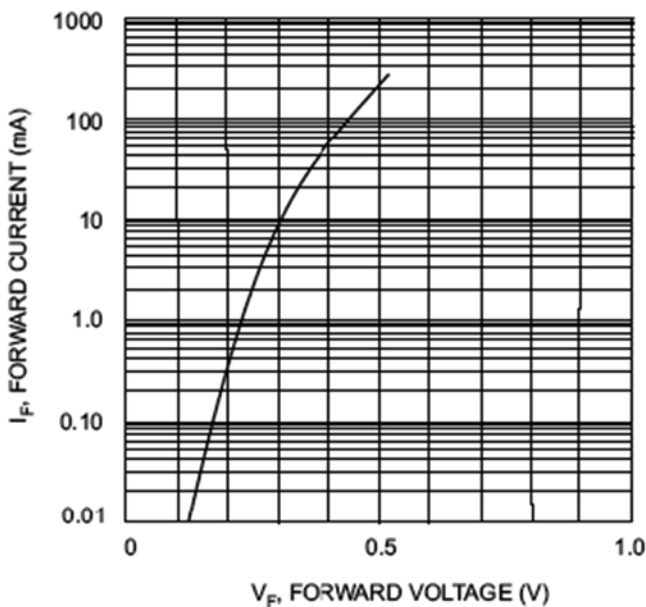


Fig. 1 Typical Forward Characteristics

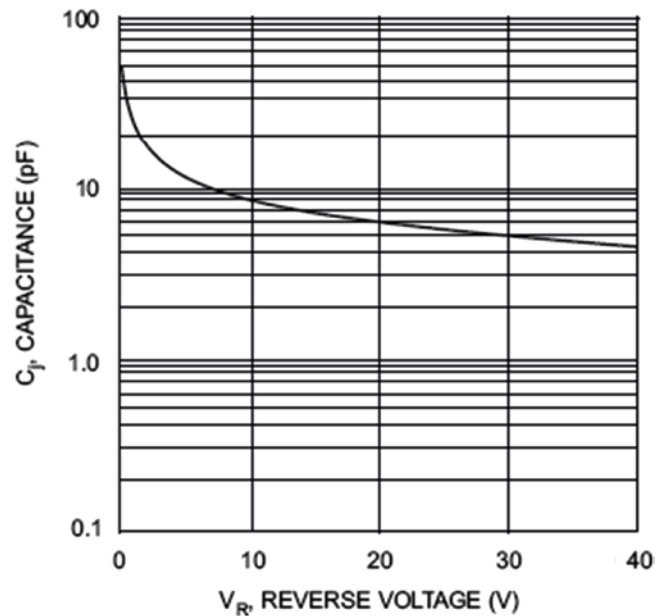


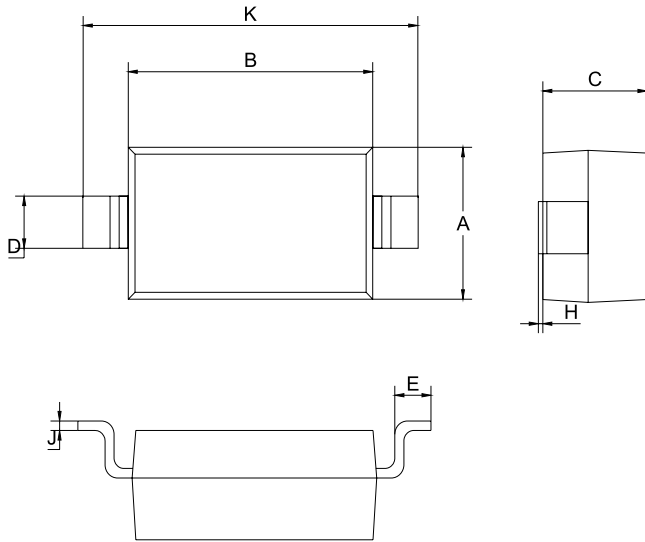
Fig. 2 Typ. Junction Capacitance vs Reverse Voltage

Schottky Barrier Diode



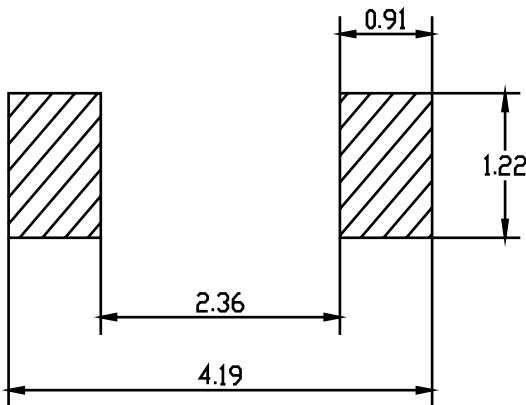
Package Outline

Plastic surface mounted package



| SOD-123 | | |
|----------------------|--------------|------|
| Dim | Min | Max |
| A | 1.4 | 1.8 |
| B | 2.55 | 2.85 |
| C | 1.15 Typical | |
| D | 0.5 | 0.6 |
| E | 0.3 | 0.4 |
| H | 0.02 | 0.10 |
| J | 0.1 Typical | |
| K | 3.55 | 3.85 |
| All Dimensions in mm | | |

Soldering Footprint



Dimensions : Millimetres

Package Information

| Device | Package | Shipping |
|--------------|---------|-------------------|
| SD103CW-13-F | SOD-123 | 3,000/Tape & Reel |

Part Number Table

| Description | Part Number |
|------------------------|--------------|
| Schottky Barrier Diode | SD103CW-13-F |

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