

Features

- Guard Ring Protection
- Low Forward Voltage Drop
- Low Power Loss For High Efficiency
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C
- Maximum Thermal Resistance: 250°C/W Junction to Ambient

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| SD103AW | S4 | 40V | 28V | 40V |
| SD103BW | S5 | 30V | 21V | 30V |
| SD103CW | S6 | 20V | 14V | 20V |

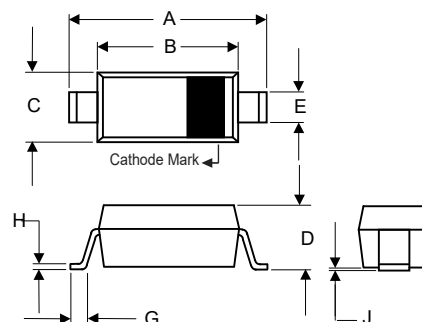
Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|--|----------------|--|
| Average Forward Current | $I_{F(AV)}$ | 350mA | Note 1 |
| Peak Forward Surge Current | I_{FSM} | 1.5A | $t \leq 1.0s$ |
| Maximum Power Dissipation | P_d | 400mW | Note 1 |
| Maximum(Note 2) Instantaneous Forward Voltage | V_F | 0.37V 0.60V | $I_{FM}=20mA;$ $I_{FM}=200mA;$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | SD103AW SD103BW SD103CW I_R | 5.0 μ A | $V_R = 30V$ $V_R = 20V$ $V_R = 10V$ |
| Typical Reverse Recovery Time | t_{rr} | 10ns | $I_F = I_R = 200mA$ $I_{rr} = 0.1 \times I_R$ $R_L = 100\Omega$ |
| Typical Junction Capacitance | C_J | 50pF | Measured at 1.0MHz, $V_R = 0.0V$ |

Note: 1. Valid provided that electrodes are kept at ambient Temperature
2. Pulse test: Pulse width 300 μ sec, Duty cycle 2%

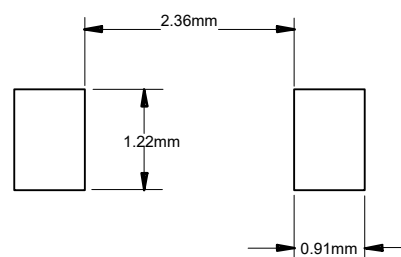
400mW Small Signal Schottky Diode 20 to 40 Volts

SOD-123



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|-------|------|------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | 0.140 | 0.152 | 3.55 | 3.85 | |
| B | 0.100 | 0.112 | 2.55 | 2.85 | |
| C | 0.055 | 0.071 | 1.40 | 1.80 | |
| D | ---- | 0.053 | ---- | 1.35 | |
| E | 0.018 | 0.026 | 0.45 | 0.65 | |
| G | 0.006 | ---- | 0.15 | ---- | |
| H | ---- | 0.010 | ---- | 0.25 | |
| J | ---- | 0.006 | ---- | 0.15 | |

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

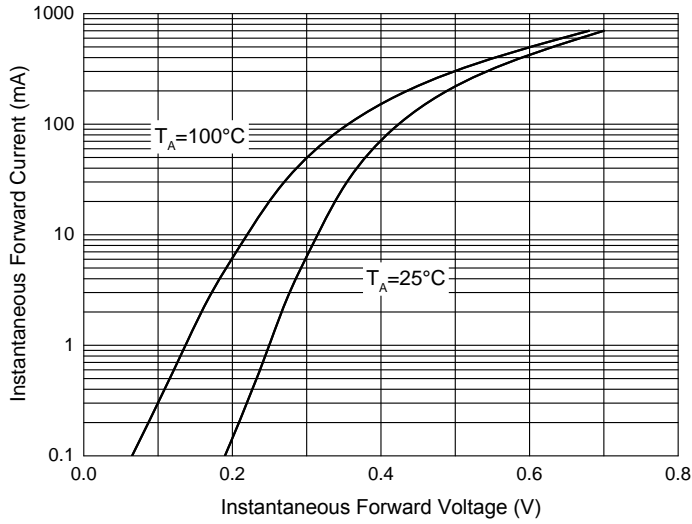


Fig. 2 - Typical Reverse Leakage Characteristics

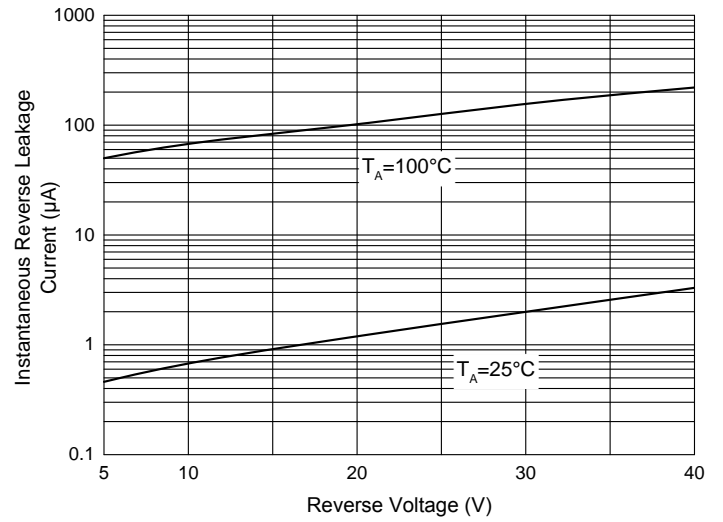
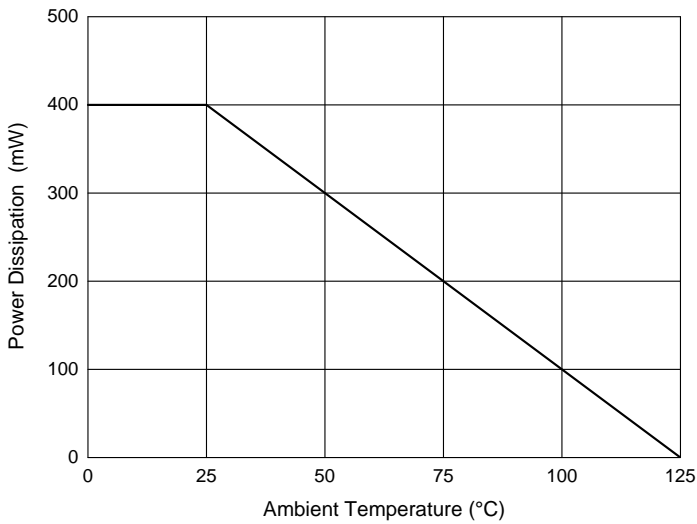


Fig. 3 - Power Derating Curve



Ordering Information

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 3Kpcs/Reel |

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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- Консультации по применению компонента;
- Поставка образцов и прототипов;
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