



Micro Commercial Components



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SD103AW THRU SD103CW

Features

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant("P" Suffix designates RoHS Compliant. See ordering information)
- Guard Ring Protection
- Low Forward Voltage Drop
- Low Power Loss For High Efficiency
- Device Marking Code: SD103AW: S4
 SD103BW: S5
 SD103CW: S6

Maximum Ratings

- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 300°C/W Junction to Ambient

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

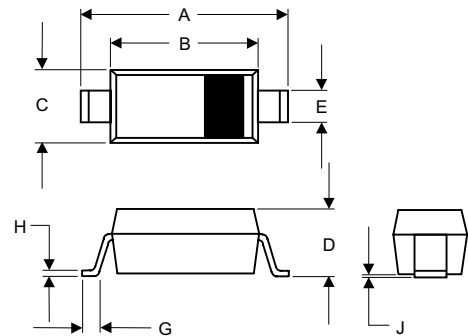
Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|----------------|--|
| 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 (Note2) Instantaneous Forward Voltage | V_F | 0.37V 0.60V | $I_{FM} = 20mA$ $I_{FM} = 200mA$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 5.0µA | $V_R = 30V$ (AW) $V_R = 20V$ (BW) $V_R = 10V$ (CW) |
| Typical Junction Capacitance | C_j | 50pF | Measured at 1.0MHz, $V_R=0V$ |
| Typical Reverse Recovery Time | t_{rr} | 10ns | $I_F = I_R = 200mA$ $I_{rr} = 0.1 \times I_R$ $R_L = 100\Omega$ |

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

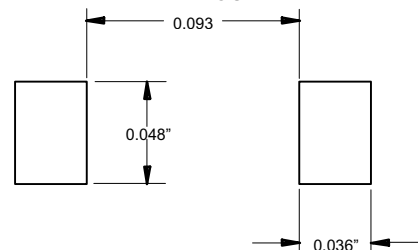
400mW Small Signal Schottky Diode 20 to 40 Volts

SOD-123



| DIM | INCHES | | MM | | NOTE |
|-----|--------|------|------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | .140 | .152 | 3.55 | 3.85 | |
| B | .100 | .112 | 2.55 | 2.85 | |
| C | .055 | .071 | 1.40 | 1.80 | |
| D | --- | .053 | --- | 1.35 | |
| E | .012 | .031 | 0.30 | 0.78 | |
| G | .006 | --- | 0.15 | --- | |
| H | --- | .010 | --- | 0.25 | |
| J | --- | .006 | --- | 0.15 | |

SUGGESTED SOLDER PAD LAYOUT



SD103AW thru SD103CW

Figure 1
Typical Forward Characteristics

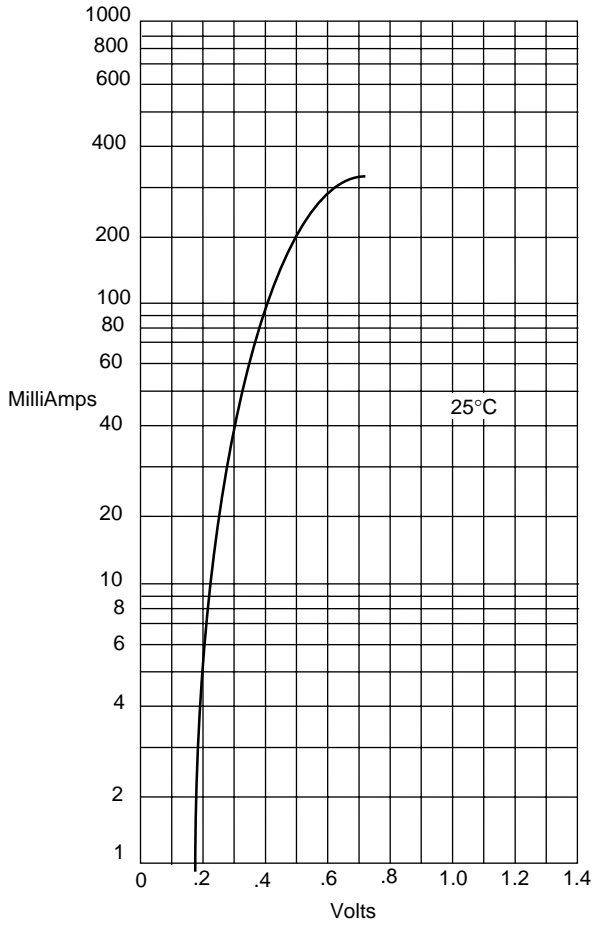


Figure 2
Typical Junction Capacitance

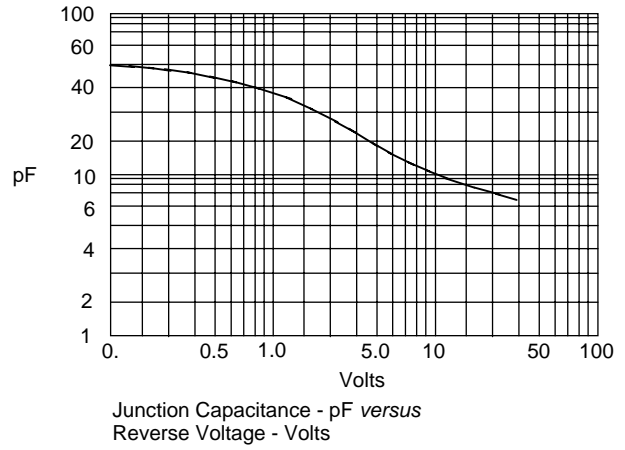
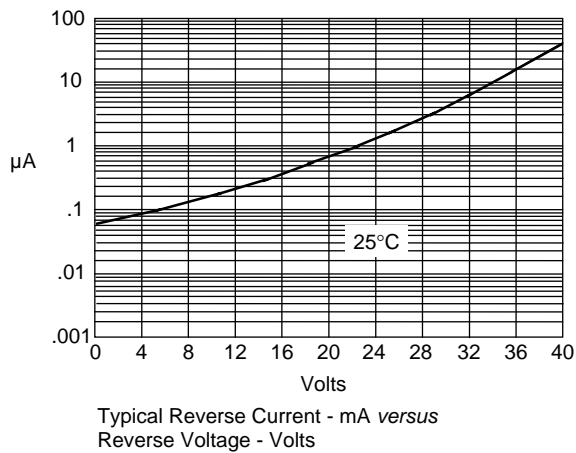


Figure 3
Typical Reverse Characteristics





TM

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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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