

## Features

- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Reverse Capacitance and Low Forward Voltage Drop
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- 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
- Thermal Resistance: 500°C/W Junction to Ambient

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|----------------------------------------|---------------------|-----------------------------|
| SD103AWS        | S4             | 40V                                    | 28V                 | 40V                         |
| SD103BWS        | S5             | 30V                                    | 21V                 | 30V                         |
| SD103CWS        | S6             | 20V                                    | 14V                 | 20V                         |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

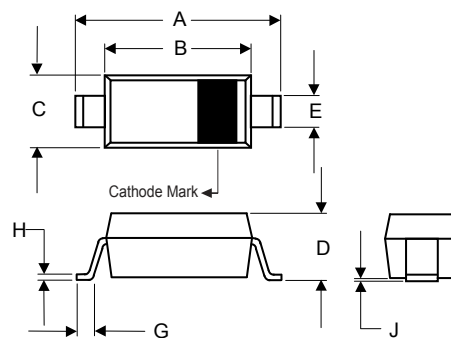
|                                                                                             |             |                |                                                                    |
|---------------------------------------------------------------------------------------------|-------------|----------------|--------------------------------------------------------------------|
| Forward Continuous Current(Note2)                                                           | $I_{F(AV)}$ | 350mA          |                                                                    |
| Peak Forward Surge Current                                                                  | $I_{FSM}$   | 1500mA         | $t \leq 1.0s$                                                      |
| Maximum Power Dissipation                                                                   | $P_d$       | 200mW          | Note 2                                                             |
| Maximum Instantaneous Forward Voltage                                                       | $V_F$       | 0.37V<br>0.60V | $I_{FM}=20mA$<br>$I_{FM}=200mA$                                    |
| Maximum DC Reverse Current At Rated DC Blocking Voltage<br>SD103AWS<br>SD103BWS<br>SD103CWS | $I_R$       | 5.0 $\mu$ A    | $V_R = 30V$<br>$V_R = 20V$<br>$V_R = 10V$                          |
| Typical Reverse Recovery Time                                                               | $T_{rr}$    | 10ns           | $I_F = I_R = 200mA$<br>$I_{rr} = 0.1 \times I_R$ $R_L = 100\Omega$ |
| Maximum Junction Capacitance                                                                | $C_J$       | 50pF           | Measured at 1.0MHz, $V_R = 0.0V$                                   |

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Note: 2.Valid provided that electrodes are kept at ambient temperature

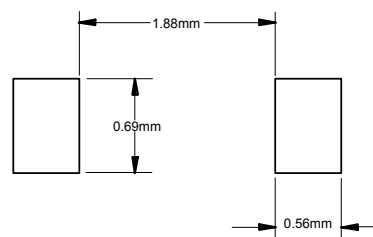
# 200mW Small Signal Schottky Diode 20 to 40 Volts

## SOD-323



| DIM | INCHES |       | MM    |      | NOTE |
|-----|--------|-------|-------|------|------|
|     | MIN    | MAX   | MIN   | MAX  |      |
| A   | 0.090  | 0.107 | 2.30  | 2.70 |      |
| B   | 0.063  | 0.071 | 1.60  | 1.80 |      |
| C   | 0.045  | 0.053 | 1.15  | 1.35 |      |
| D   | 0.031  | 0.040 | 0.80  | 1.00 |      |
| E   | 0.010  | 0.016 | 0.25  | 0.40 |      |
| G   | 0.004  | 0.018 | 0.10  | 0.45 |      |
| H   | 0.004  | 0.010 | 0.10  | 0.25 |      |
| J   | -----  | 0.006 | ----- | 0.15 |      |

## Suggested Solder Pad Layout



## Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

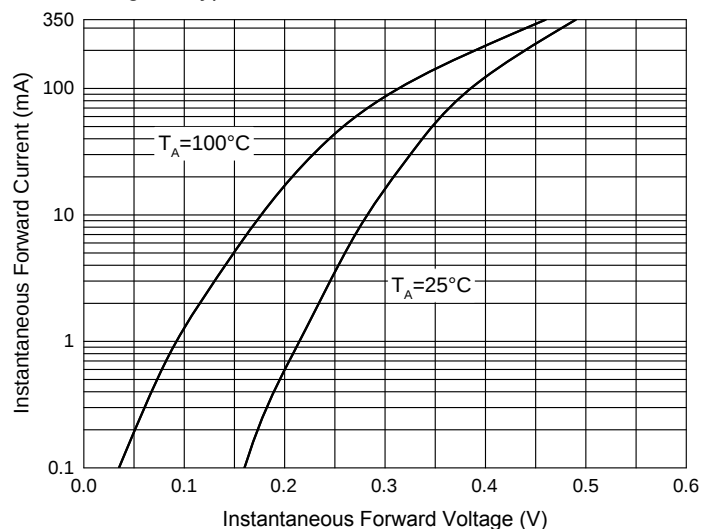


Fig. 2 - Typical Reverse Leakage Characteristics

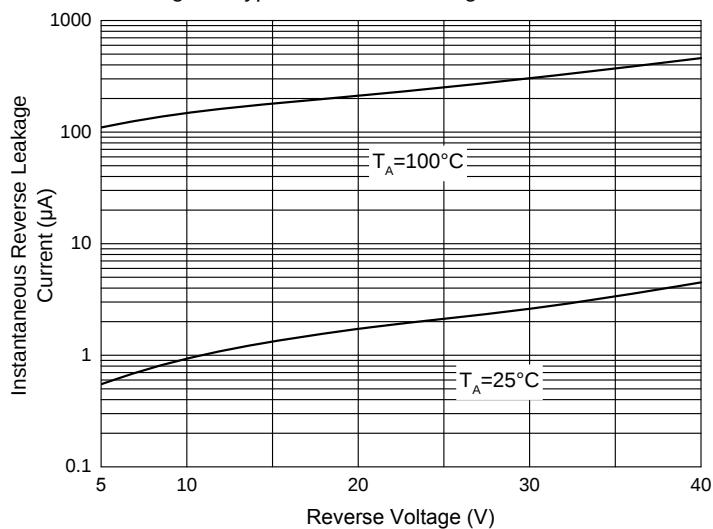


Fig. 3 - Power Derating Curve

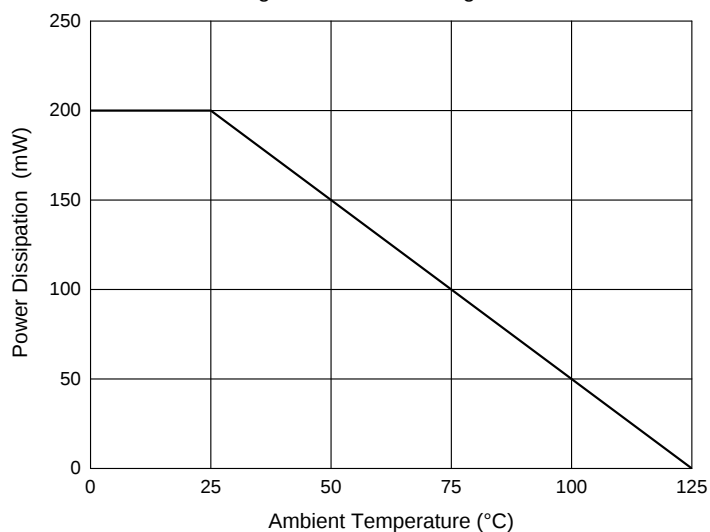
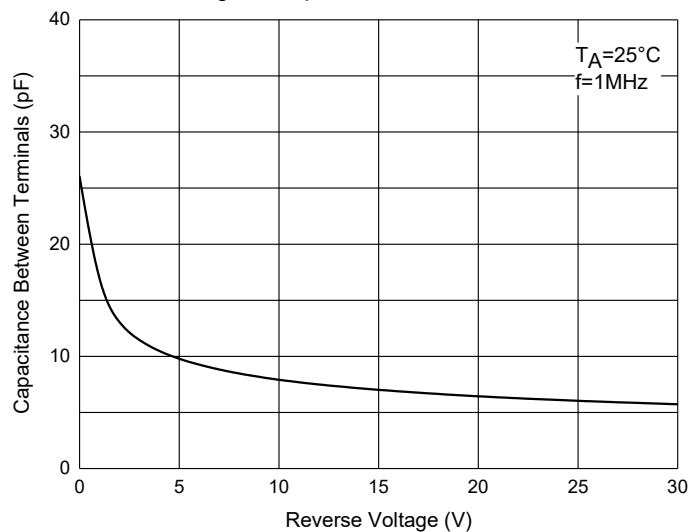


Fig. 4 - Capacitance Characteristics



## Ordering Information

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

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