

## 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                         |

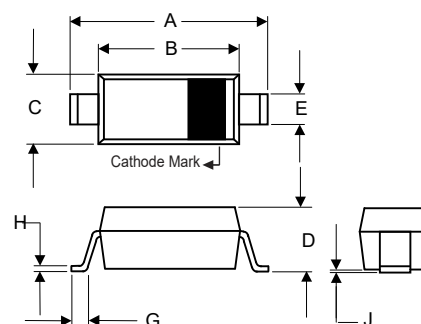
## Electrical Characteristics @ 25°C Unless Otherwise Specified

|                                                         |             |                |                                                                    |
|---------------------------------------------------------|-------------|----------------|--------------------------------------------------------------------|
| 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<br>0.60V | $I_{FM}=20mA$ ;<br>$I_{FM}=200mA$ ;                                |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 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>$I_{rr} = 0.1 \times I_R$ $R_L = 100\Omega$ |
| 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  $\mu$ sec, Duty cycle 2%

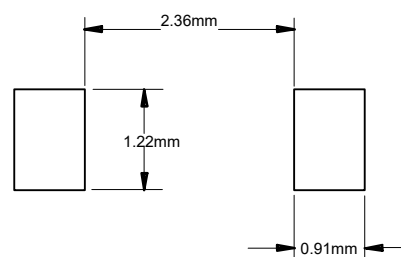
# 400mW Small Signal Schottky Diode 20 to 40 Volts

## SOD-123



| DIM | INCHES |       | MM   |      | NOTE |
|-----|--------|-------|------|------|------|
|     | 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

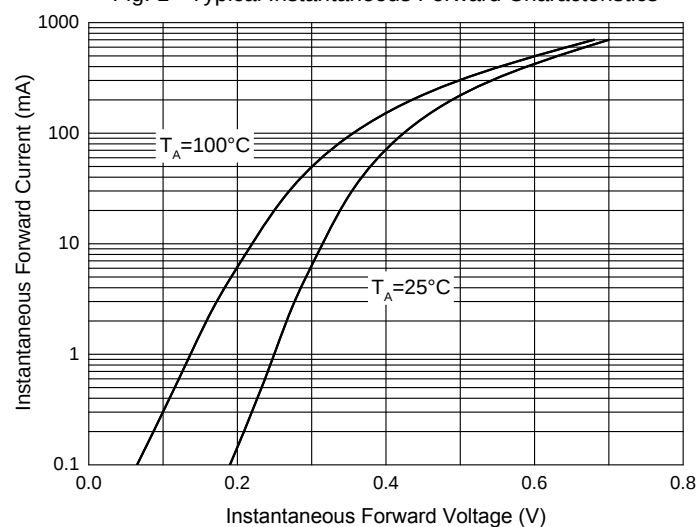


Fig. 2 - Typical Reverse Leakage Characteristics

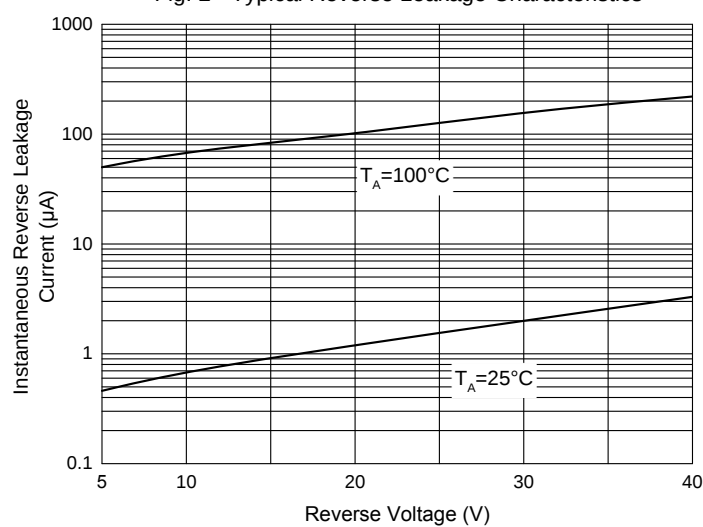
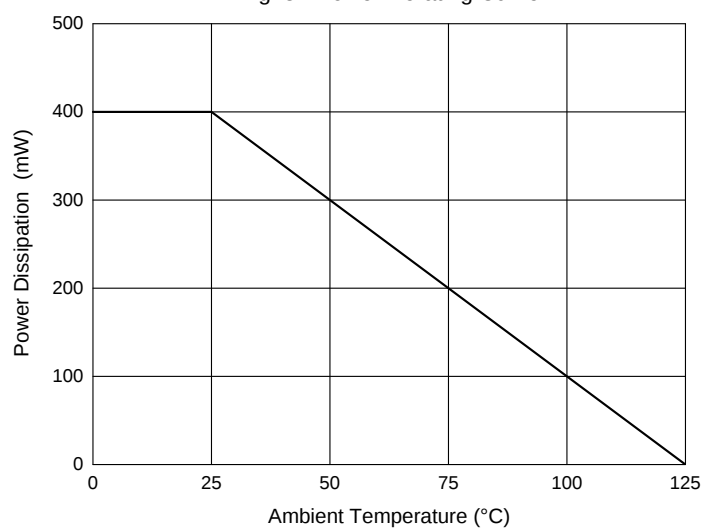


Fig. 3 - Power Derating Curve



## 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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