

# Features

- Low Reverse Recovery Time
- Low Reverse Capacitance
- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- 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: 250°C/W Junction to Ambient

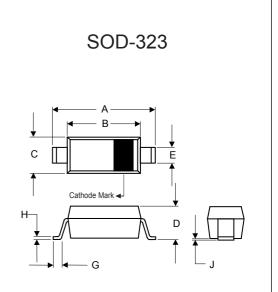
| MCC<br>Part Number | Device<br>Marking | Maximum<br>Recurrent<br>Peak Reverse<br>Voltage | Maximum<br>RMS Voltage | Maximum DC<br>Blocking<br>Voltage |
|--------------------|-------------------|---|------------------------|-----------------------------------|
| SD101AWS           | S1                | 60V   | 42V                    | 60V                               |
| SD101BWS           | S2                | 50V   | 35V                    | 50V                               |
| SD101CWS           | S3                | 40V   | 28V                    | 40V                               |

### Electrical Characteristics @ 25°C Unless Otherwise Specified

|  | _                                |                  |                         |  |
|--|----------------------------------|------------------|-------------------------|--|
| Forward<br>Continuous Current                |                                  | $I_{F(AV)}$      | 15mA                    |  |
| Peak Forward Surge<br>Current                |                                  | I <sub>FSM</sub> | 2A                      | t=8.3ms  |
| Power Dissipation                            |                                  | $P_{d}$          | 400mW                   | Note 1   |
| Maximum<br>Instantaneous<br>Forward Voltage  | SD101AWS<br>SD101BWS<br>SD101CWS | V <sub>F</sub>   | 0.41V<br>0.40V<br>0.39V | I <sub>F</sub> =1mA                                  |
|  | SD101AWS<br>SD101BWS<br>SD101CWS |                  | 1.00V<br>0.95V<br>0.90V | I <sub>F</sub> =15mA                                 |
| Maximum DC<br>Reverse Current<br>At Rated DC |                                  |                  |                         |  |
| Blocking<br>Voltage                          | SD101AWS<br>SD101BWS<br>SD101CWS | I <sub>R</sub>   | 200nA                   | $V_{R} = 50V$ $V_{R} = 40V$ $V_{R} = 30V$            |
| Maximum Reverse<br>Recovery Time             |                                  | t <sub>rr</sub>  | 1.0ns                   | $I_F = I_R = 5mA$<br>$I_r = 0.1XIR, R_L = 100\Omega$ |
| Maximum<br>Junction<br>Capacitance           | SD101AWS<br>SD101BWS<br>SD101CWS | CJ               | 2.0pF<br>2.1pF<br>2.2pF | Measured at<br>1.0MHz, V <sub>R</sub> =0.0V          |

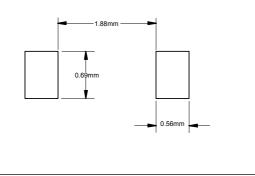
Note: 1.Valid provided that electrodes are kept at ambient temperature

# 400mW Small Signal Schottky Diode 40 to 60 Volts



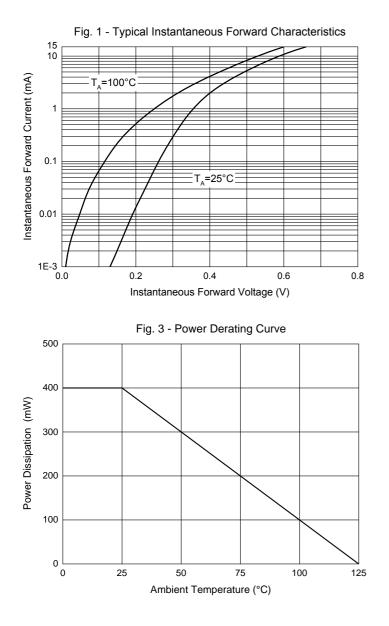
| DIMENSIONS |        |       |      |      |      |
|------------|--------|-------|------|------|------|
| DIM        | INCHES |       | MM   |      | NOTE |
|            | MIN    | MAX   | MIN  | MAX  | NOTE |
| А          | 0.090  | 0.107 | 2.30 | 2.70 |      |
| В          | 0.063  | 0.071 | 1.60 | 1.80 |      |
| С          | 0.045  | 0.053 | 1.15 | 1.35 |      |
| D          | 0.031  | 0.045 | 0.80 | 1.15 |      |
| E          | 0.010  | 0.016 | 0.25 | 0.40 |      |
| G          | 0.004  | 0.018 | 0.10 | 0.45 |      |
| Н          | 0.004  | 0.010 | 0.10 | 0.25 |      |
| J          |        | 0.006 |      | 0.15 |      |

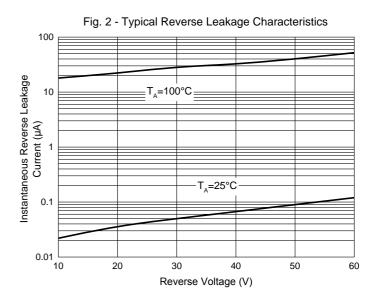
#### Suggested Solder Pad Layout





# **Curve Characteristics**







# **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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