

Features

- Low Turn-on Voltage
- Fast Switching
- Microminiature Plastic Package
- This Device is Protected by a PN Junction Guard Ring Against Excessive Voltage, Such as Electrostatic Discharge.
- 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 +150°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 |
|-----------------|----------------|--|---------------------|-----------------------------|
| SD107WS | SG | 30V | 21V | 30V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

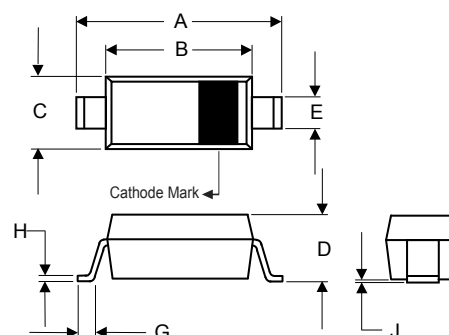
| | | | |
|---|-------------|--|---|
| Average Forward Current | $I_{F(AV)}$ | 0.1A | |
| Peak Forward Surge Current | I_{FSM} | 0.75A | $t_p=10ms$ |
| Power Dissipation | P_d | 250mW ⁽²⁾ | |
| Instantaneous Forward Voltage | V_F | 550mV(Max) 800mV(Max) 300mV(Typ) 360mV(Typ) 470mV(Typ) 580mV(Typ) | $I_F=50mA$ $I_F=100mA$ $I_F=2.0mA$ $I_F=15mA$ $I_F=50mA$ $I_F=100mA$ |
| Minimum Reverse Breakdown Voltage | V_{BR} | 30V | $I_R=100\mu A$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 1000nA | $V_R=25V$ |
| Maximum Junction Capacitance | C_J | 7.0pF | Measured at 1.0MHz, $V_R=10.0V$ |

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

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

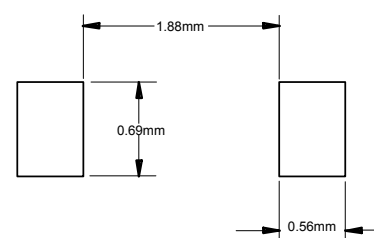
250mW, 30 Volt Schottky Barrier Diode

SOD-323



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|-------|-------|------|------|
| | INCHES | | MM | | |
| | 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 | 0.045 | 0.80 | 1.15 | |
| 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

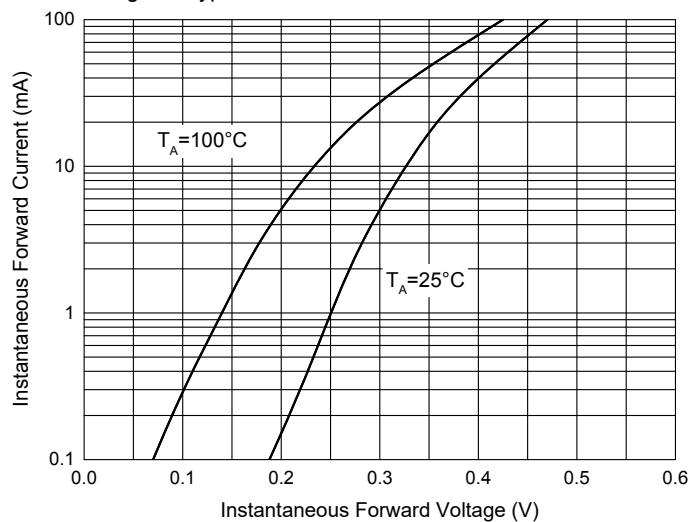


Fig. 2 - Typical Reverse Leakage Characteristics

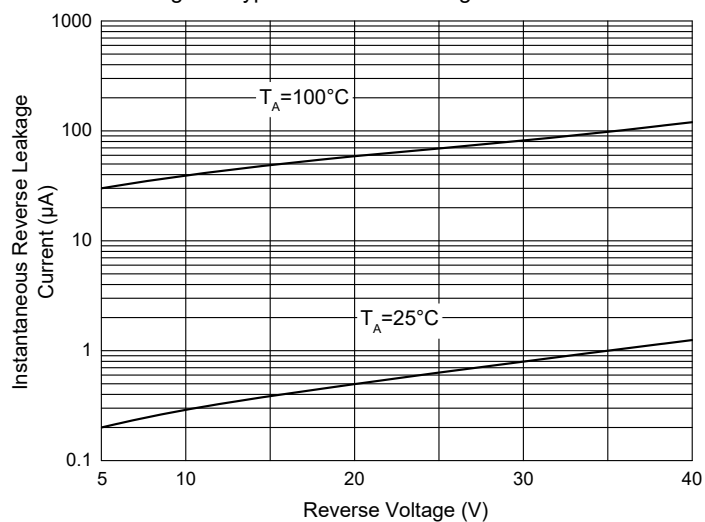
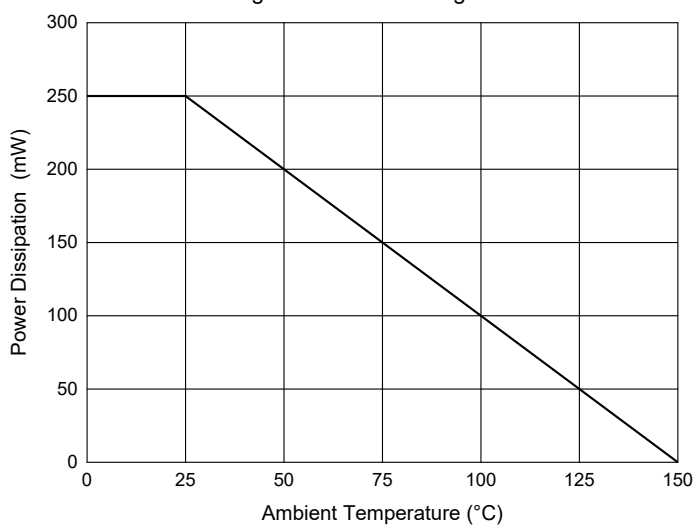


Fig. 3 - Power Derating Curve



Ordering Information

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

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