

Features

- Halogen Free. "Green" Device (Note 1)
- Low Voltage, Low Inductance
- High Current Rectifier Schottky Diode
- For Power Supply
- 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
- Thermal Resistance(Note2): 500°C/W Junction to Ambient

| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|--|---------------------|-----------------------------|
| RB751S-40 | 40V | 28V | 40V |

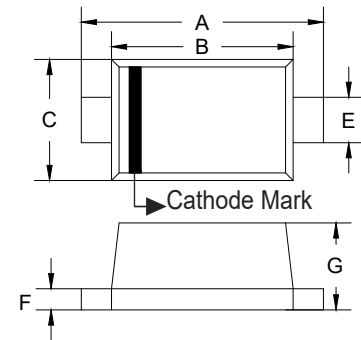
Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|-------------------------------------|------------|------------|---|
| Mean Rectifying Current | I_O | 30mA | |
| Non-Repetitive Peak Forward Current | I_{FSM} | 500mA | $t=8.3ms$ |
| Power Dissipation | P_D | 200mW | |
| Forward Voltage | V_F | 0.37V(Max) | $I_F=1mA$ |
| Reverse Current | I_R | 0.5µA(Max) | $V_R = 30V$ |
| Minimum Reverse Breakdown Voltage | $V_{(BR)}$ | 30V | $I_R=10µA$ |
| Capacitance Between Terminals | C_T | 2pF | $V_R=1V, f=1MHz$ |
| Max Reverse Recovery Time | t_{rr} | 7.0ns | $I_R=I_F=10mA$ $I_{rr}=1mA,$ $R_L=100Ω$ |

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. Part mounted on FR-4 board with recommended pad layout.

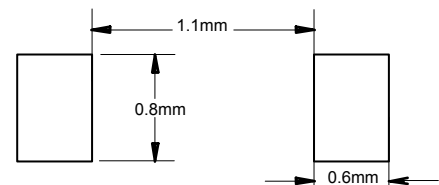
**40 Volts
Schottky Barrier
Diode**

SOD-523

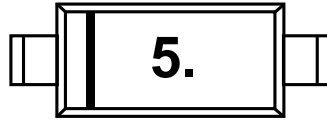
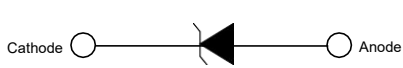


| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|-------|------|------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | 0.059 | 0.067 | 1.50 | 1.70 | |
| B | 0.043 | 0.051 | 1.10 | 1.30 | |
| C | 0.030 | 0.033 | 0.75 | 0.85 | |
| E | 0.010 | 0.014 | 0.25 | 0.35 | |
| F | 0.003 | 0.008 | 0.08 | 0.20 | |
| G | 0.020 | 0.026 | 0.50 | 0.65 | |

Suggested Solder Pad Layout



Internal Structure and Marking Code



Curve Characteristics

Fig. 1 - Forward Characteristics

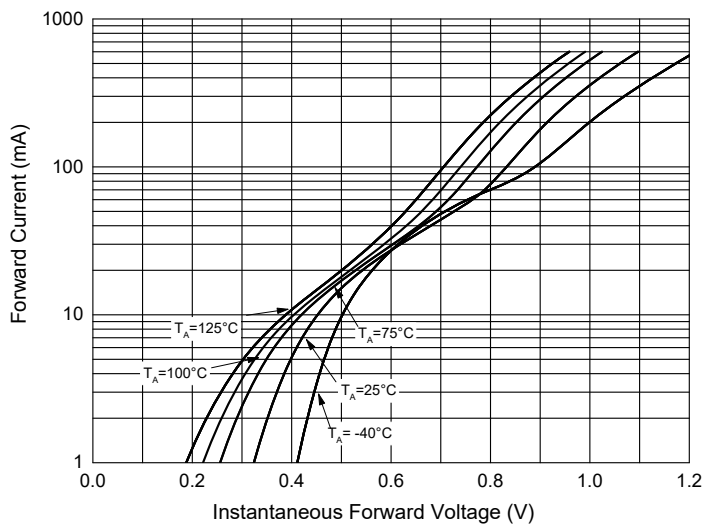


Fig. 2 - Reverse Characteristics

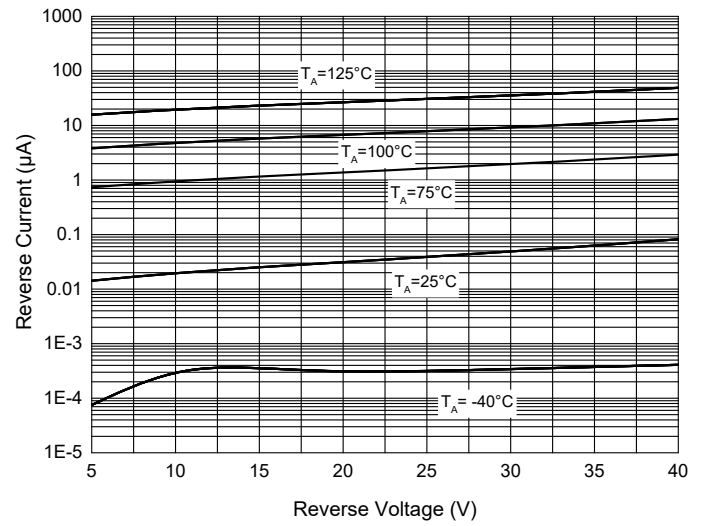


Fig. 3 - Capacitance Characteristics

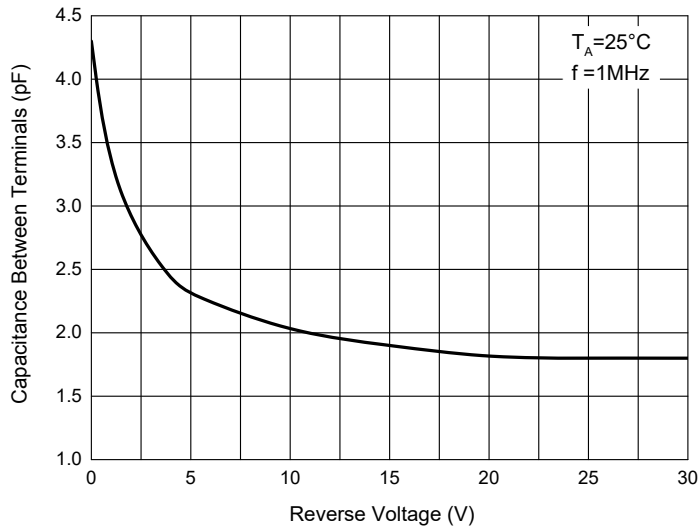
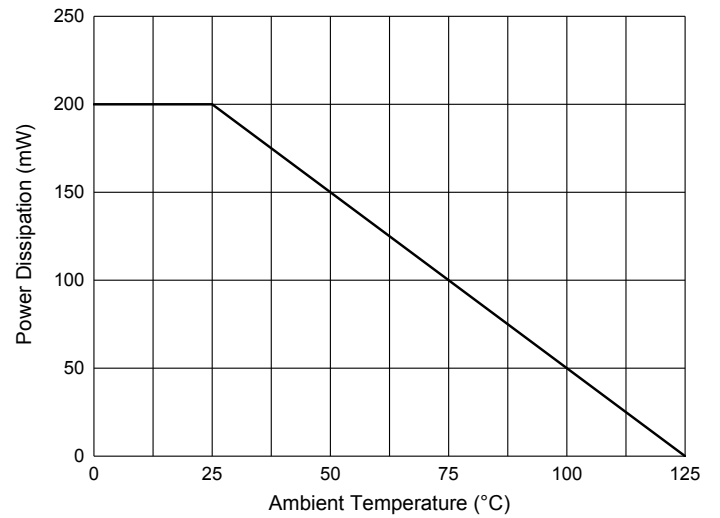


Fig. 4 - Power Derating Curve



Ordering Information

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 8Kpcs/Reel |

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