

## Features

- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- High Reliability
- Low Reverse Current and Low Forward Voltage
- Small Surface Mount Type
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Halogen Free. "Green" Device (Note 1)

## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 667°C/W Junction to Ambient

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|----------------------------------------|-----------------------------|
| RB520S-40       | D1             | 40V                                    | 40V                         |

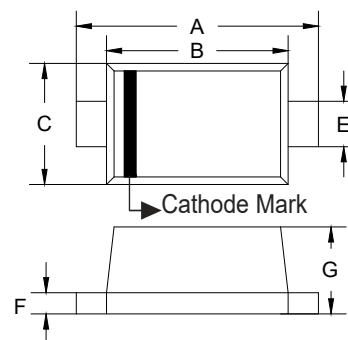
## Electrical Characteristics @ 25°C Unless Otherwise Specified

|                            |           |                                                                                 |                               |
|----------------------------|-----------|---------------------------------------------------------------------------------|-------------------------------|
| Mean Rectifying Current    | $I_O$     | 200mA                                                                           |                               |
| Peak Forward Surge Current | $I_{FSM}$ | 1A                                                                              | $t=8.3ms$                     |
| Power Dissipation          | $P_D$     | 150mW                                                                           |                               |
| Forward Voltage            | $V_F$     | 0.30V(Typ)<br>0.39V(Max)<br>0.45V(Typ)<br>0.55V(Max)                            | $I_F=10mA$ ;<br>$I_F=100mA$ ; |
| Reverse Current            | $I_R$     | 0.6 $\mu A$ (Typ)<br>1.0 $\mu A$ (Max)<br>2.8 $\mu A$ (Typ)<br>10 $\mu A$ (Max) | $V_R = 10V$<br>$V_R = 40V$    |

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

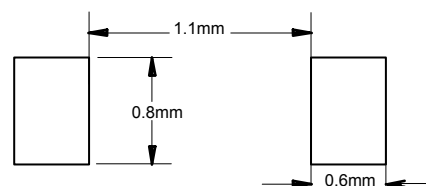
# 200 mA Schottky Barrier Diode 40 Volts

## SOD-523



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



## Curve Characteristics

Fig. 1 - Forward Characteristics

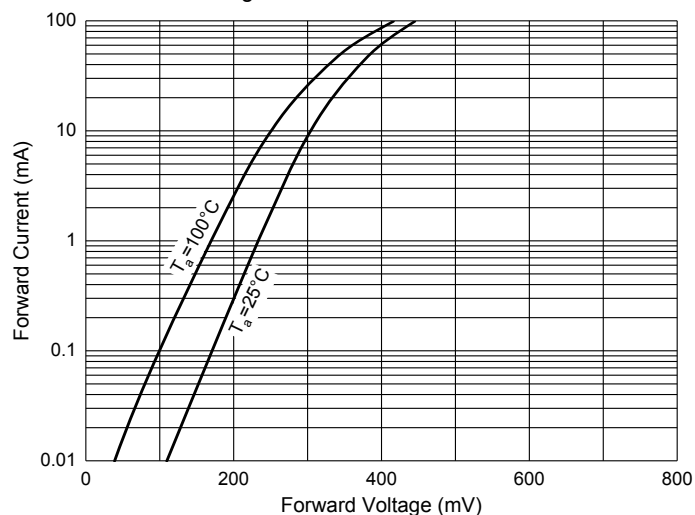


Fig. 2 - Reverse Characteristics

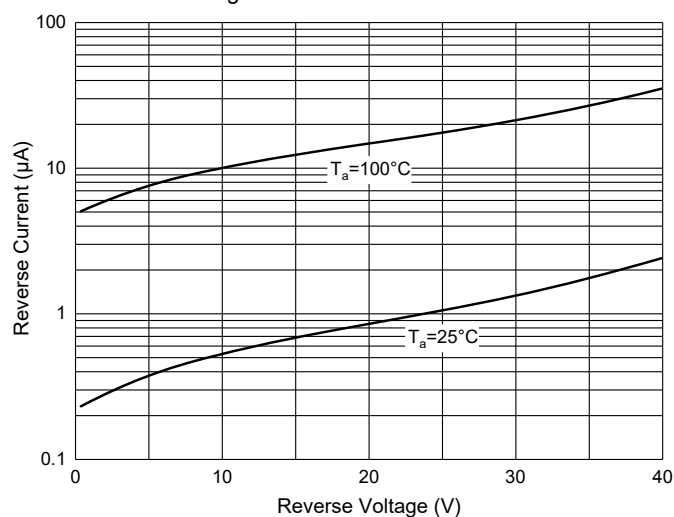


Fig. 3 - Capacitance Characteristics

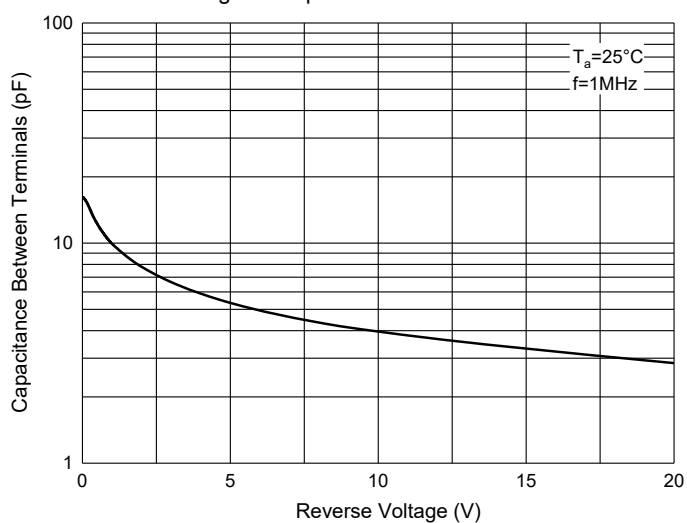
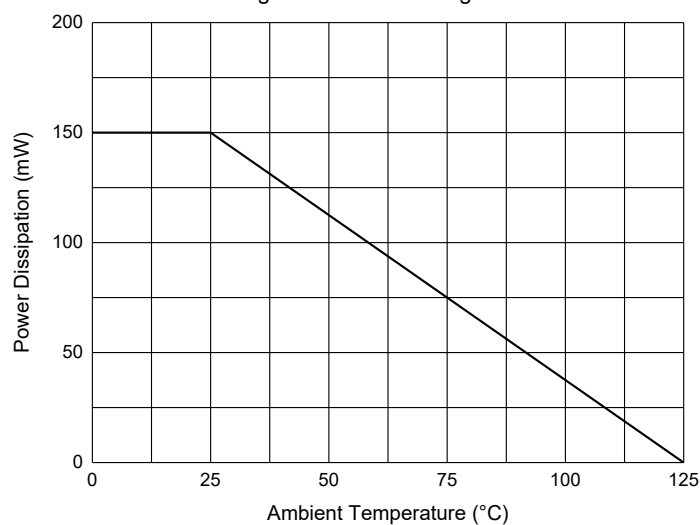


Fig. 4 - Power Derating Curve



## Ordering Information

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

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