



**THE DATASHEET OF
RB520S-40-TP**



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 |

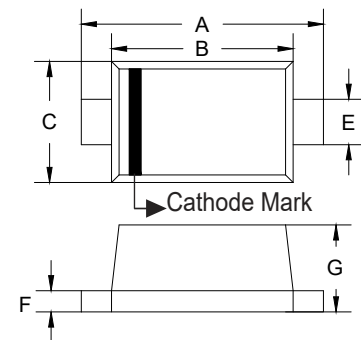
Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|----------------------------|-----------|--|---------------------------------|
| 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) 0.39V(Max) 0.45V(Typ) 0.55V(Max) | $I_F=10mA;$ $I_F=100mA;$ |
| Reverse Current | I_R | 0.6µA(Typ) 1.0µA(Max) 2.8µA(Typ) 10µA(Max) | $V_R = 10V$ $V_R = 40V$ |

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**

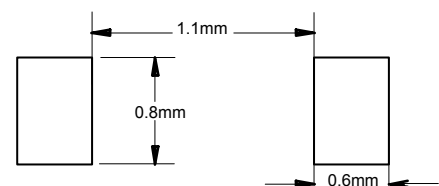
SOD-523



DIMENSIONS

| 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

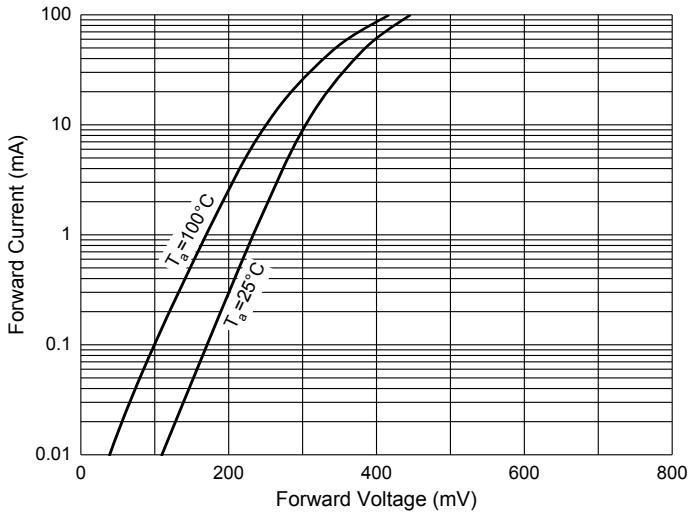


Fig. 2 - Reverse Characteristics

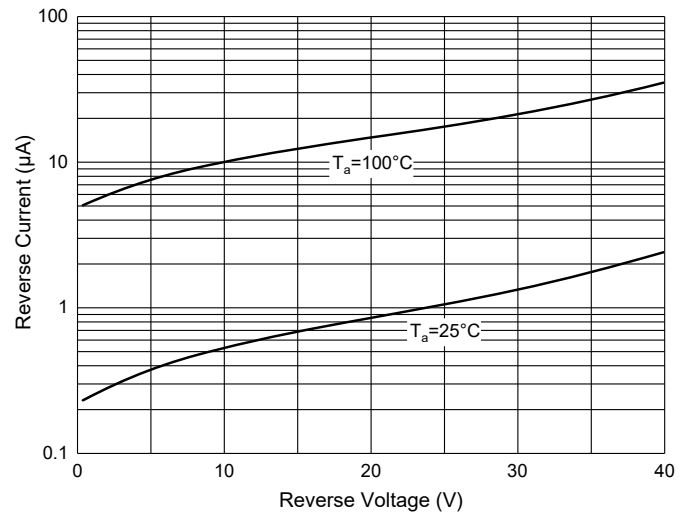


Fig. 3 - Capacitance Characteristics

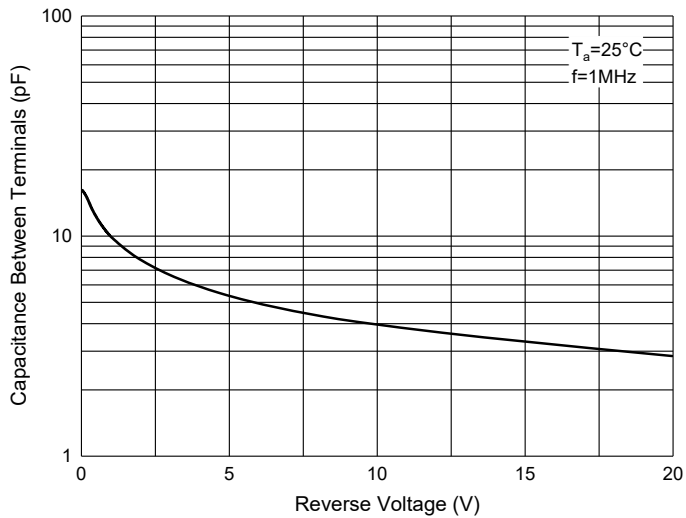
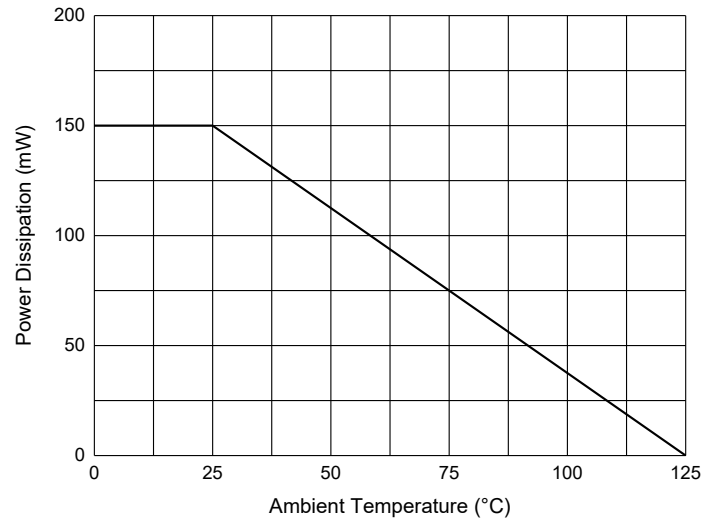


Fig. 4 - Power Derating Curve



Ordering Information

| Device | Packing |
|-----------------|-----------------------|
| Part Number-TP | Tape&Reel: 8Kpcs/Reel |
| Part Number-T3P | Tape&Reel: 3Kpcs/Reel |

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