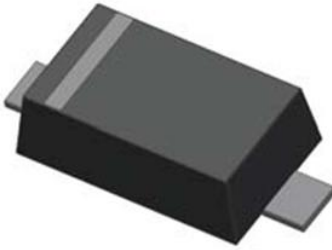
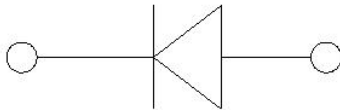


Small Signal Schottky Diode



Features

- V_R 40V
- I_{FM} 200mA



Mechanical Data

- **Package:** SOD523
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** S

■ Maximum Ratings (Ta=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | Conditions | VALUE |
|---|-----------------|------|----------------------------|-------------|
| Reverse voltage | V_R | V | $I_R=10\mu A$ | 40 |
| Forward continuous current | I_{FM} | mA | $T_a=25^\circ C$ | 200 |
| Non-repetitive Peak Forward Surge Current | I_{FSM} | A | $t=8.3ms$, Half sine-wave | 1 |
| Repetitive Peak Forward Current | I_{FRM} | A | $t_p=1ms$, $\delta=0.25$ | 0.5 |
| Power dissipation | P_D | mW | | 150 |
| Junction temperature | T_j | °C | | 125 |
| Storage temperature range | T_{stg} | °C | | -40 to +150 |
| Thermal Resistance From Junction To Ambient | $R_{\theta JA}$ | °C/W | | 667 |

■ Electrical Characteristics (Ta=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | Conditions | Min | Max |
|---------------------------|--------|---------|----------------|-----|------|
| Maximum Forward voltage | V_F | V | $I_F=200mA$ | | 0.59 |
| Maximum Reverse current | I_R | μA | $V_R=30V$ | | 5 |
| Minimum Breakdown voltage | V_R | V | $I_R=100\mu A$ | 40 | |

■ Ordering Information (Example)

| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| RB521S-40 | F2 | Approximate 0.002 | 8000 | 80000 | 320000 | 7" reel |



■ Characteristics (Typical)

Fig 1: Typical Forward Characteristics

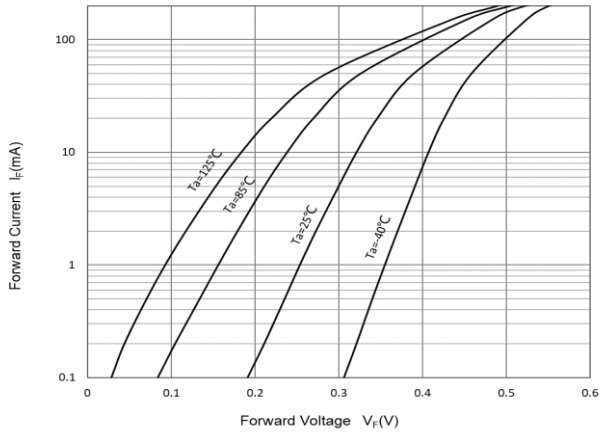


Fig 2: Typical Reverse Characteristics

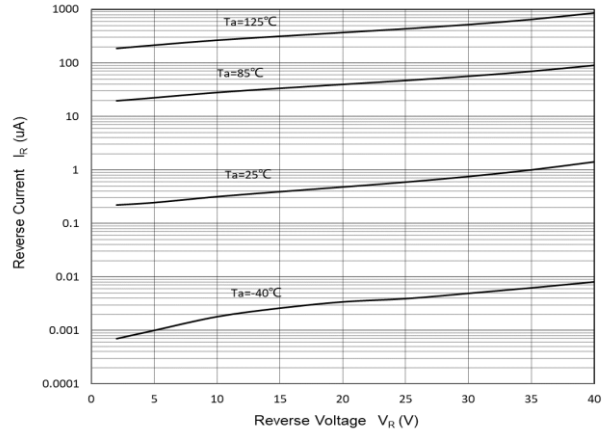
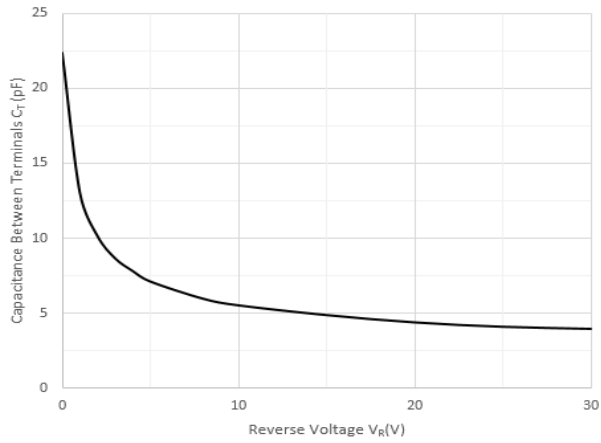
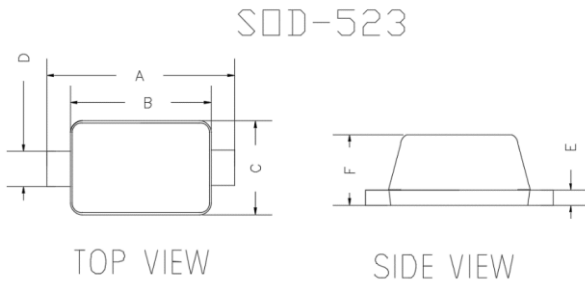


Fig 3: Capacitance Capability



■ Outline Dimensions

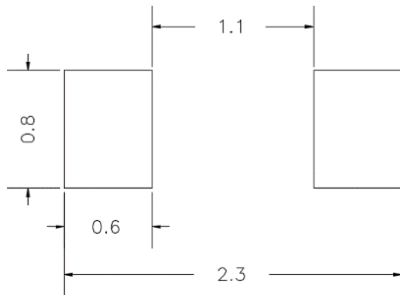


| DIMENSIONS | | | | |
|------------|--------|-------|-------|-------|
| DIM | INCHES | | MM | |
| | MIN | MAX | MIN | MAX |
| A | 0.059 | 0.067 | 1.500 | 1.700 |
| B | 0.043 | 0.051 | 1.100 | 1.300 |
| C | 0.028 | 0.035 | 0.700 | 0.900 |
| D | 0.010 | 0.014 | 0.250 | 0.350 |
| E | 0.002 | 0.008 | 0.050 | 0.200 |
| F | 0.020 | 0.028 | 0.500 | 0.700 |

Note:

1. All dimensions are in millimeters (mm) unless otherwise specified.
[所有尺寸均以毫米为单位，除非另有说明]
2. General tolerances: $\pm 0.10\text{mm}$ unless otherwise specified.
[通用公差为 $\pm 0.10\text{mm}$ ，除非另有说明]
3. Dimensions and tolerances per ASME Y14.5M-2018.
[尺寸和公差遵循 ASME Y14.5M-2018 标准]
4. All dimensions shown are exclusive of burrs and gate residues.
Burr and gate vestiges shall not exceed 0.15 mm in maximum.
[所有尺寸均不包括毛刺和浇口残留。毛刺与浇口残留的尺寸最大不得超过 0.15mm]
5. Dimension b does not include dambar protrusion of max 0.100 mm per side.
[尺寸b不包括单边最大0.100 MM的中筋凸出部分]
6. Dimensions B and C are the overall extreme outer dimensions of the mold compound. These dimensions exclude mold flash, lead flash, protrusions and burrs but include the maximum allowable mold mismatch.
[B和C是塑封体的外部极限尺寸，不包括包封溢料、内引线溢料、凸出部分以及胶体毛刺，但是包含了包封错位的最大尺寸]
7. Formed leads shall be planar with respect to one another within a maximum of 0.076 mm relative to the seating plane.
[成型的管脚应为同一平面，共面性最大为0.1mm]

■ Soldering Footprint



UNIT: mm

SUGGESTED SOLDER PAD LAYOUT



RB521S-40

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