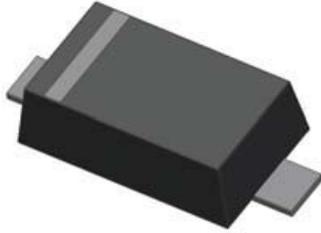


Schottky Barrier Diode



Features

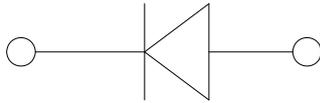
- V_R 40V
- I_F 200mA

Typical Applications

- Low Forward Voltage Drop

Mechanical Data

- **Package:** SOD523
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** 43



■ Limiting Values (Absolute Maximum Rating)

| Item | Symbol | Unit | Conditions | Limit Max |
|-----------------------------------|-----------|------|------------|-------------|
| Power Dissipation | P_D | mW | | 150 |
| Storage Temperature | T_{STG} | °C | | -55 to +150 |
| Junction Temperature | T_J | °C | | 125 |
| DC Reverse Voltage | V_R | V | | 40 |
| Average Rectified Forward Current | I_{FAV} | mA | | 200 |

■ Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

| Item | Symbol | Unit | Conditions | Min | Max |
|-------------------------|----------|------|---|-----|------|
| Breakdown Voltage | V_R | V | $I_R=100\mu\text{A}$ | 40 | |
| Reverse Leakage Current | I_R | nA | $V_R=30\text{V}$ | | 200 |
| Forward Voltage | V_F | V | $I_F=1\text{mA}$ | | 0.38 |
| | | | $I_F=40\text{mA}$ | | 1 |
| Reverse Recovery Time | T_{rr} | ns | $I_F=I_R=10\text{mA}$ to $I_R=1\text{mA}$, $R_L=100\Omega$ | | 5 |
| Capacitance | C_j | pF | $V_R=0\text{V}$, $f=1\text{MHz}$ | | 4 |

■ Ordering Information (Example)

| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|--------------------|----------------------|-------------------------|----------------------------|---------------|
| BAS40X | F2 | Approximate 0.0025 | 8000 | 80000 | 320000 | 7" reel |



■ Characteristics(Typical)

Fig. 1 - Typical Instantaneous Forward Characteristics

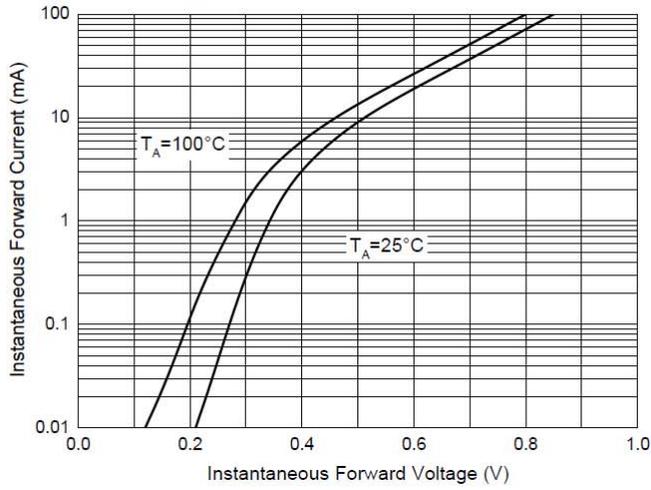


Fig. 2 - Typical Reverse Leakage Characteristics

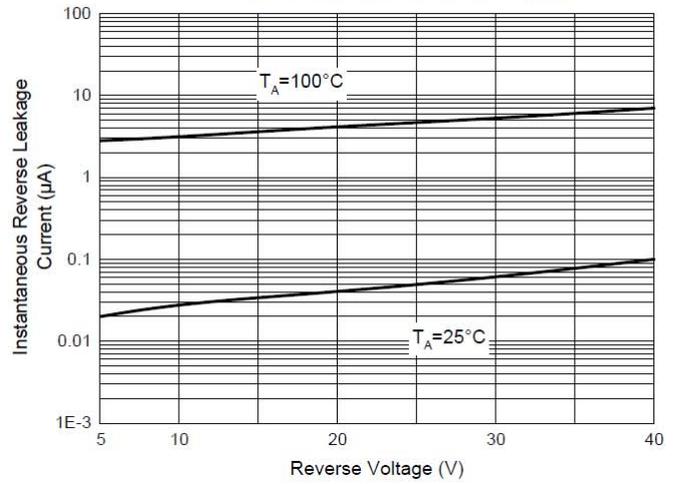
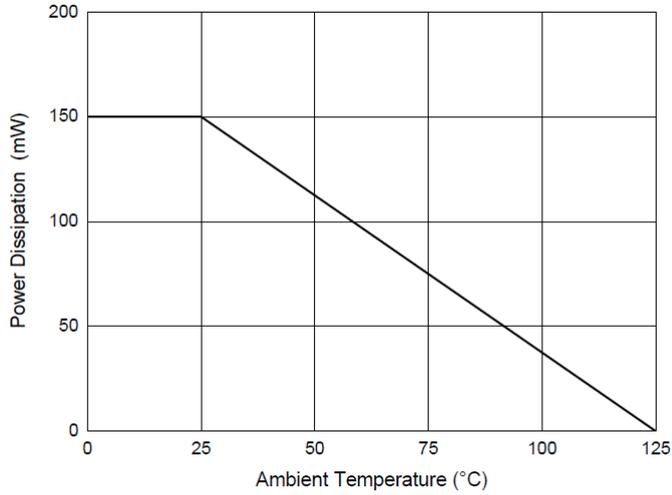
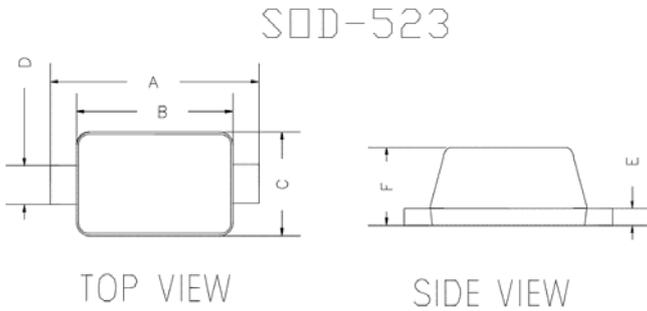


Fig. 3 - Power Derating Curve



■ Outline Dimensions

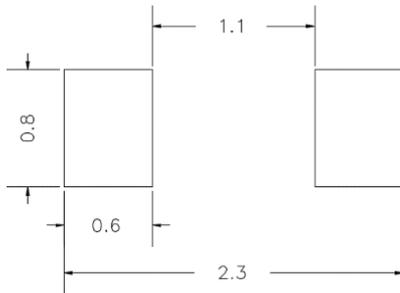


| DIMENSIONS | | | | |
|------------|--------|-------|-------|-------|
| DIM | INCHES | | MM | |
| | MIN | MAX | MIN | MAX |
| A | 0.059 | 0.067 | 1.500 | 1.700 |
| B | 0.043 | 0.051 | 1.100 | 1.300 |
| C | 0.028 | 0.035 | 0.700 | 0.900 |
| D | 0.010 | 0.014 | 0.250 | 0.350 |
| E | 0.002 | 0.008 | 0.050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

Note:

- 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]
- 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]
- Dimensions and tolerances per ASME Y14.5M-2018.
[尺寸和公差遵循 ASME Y14.5M-2018 标准]
- All dimensions shown are exclusive of burrs and gate residues.
Burrs 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]
- 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]
- 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]
- 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



BAS40X

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