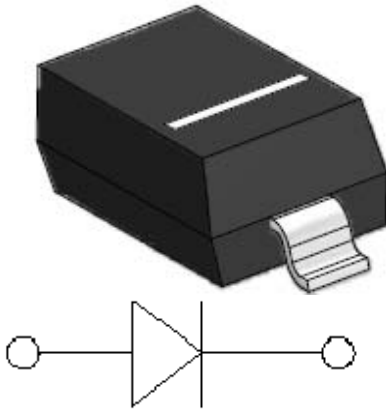


Small Signal Schottky Diode



Features

- V_R 30V
- I_{FAV} 200mA

Mechanical Data

- **Package:** SOD-123
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** S7

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

| PARAMETER | SYMBOL | UNIT | Conditions | VALUE |
|---------------------------------|------------|---------------------------|---------------------|-------------|
| Repetitive peak reverse voltage | V_{RRM} | V | $I_R=10\mu\text{A}$ | 30 |
| Peak forward surge current | I_{FSM} | A | $t_p=8.3\text{ms}$ | 4 |
| Average forward current | I_{FAV} | mA | | 200 |
| Power dissipation | P_{tot} | mW | | 350 |
| Thermal Resistance | R_{thJA} | $^\circ\text{C}/\text{W}$ | | 265 |
| Maximum junction temperature | T_j | $^\circ\text{C}$ | | 125 |
| Storage temperature range | T_{stg} | $^\circ\text{C}$ | | -55 to +150 |

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

| PARAMETER | SYMBOL | UNIT | Conditions | VALUE |
|---------------------------|--------|---------------|-----------------------------------|-------|
| Maximum Forward voltage | V_F | V | $I_F=10\text{mA}$ | 0.4 |
| | | V | $I_F=50\text{mA}$ | 0.65 |
| | | V | $I_F=200\text{mA}$ | 1 |
| Maximum Reverse current | I_R | μA | $V_R=25\text{V}$ | 0.5 |
| Minimum Breakdown voltage | V_R | V | $I_R=10\mu\text{A}$ | 30 |
| Maximum Diode capacitance | C_D | pF | $V_R=1\text{V}$, $f=1\text{MHz}$ | 20 |



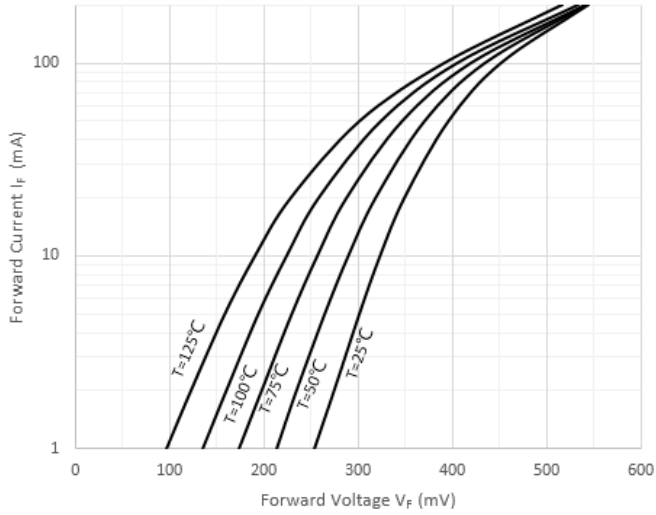
BAT42W

Ordering Information (Example)

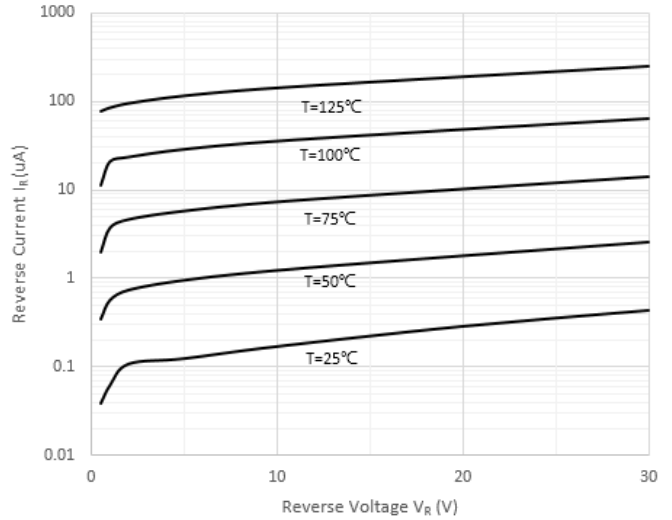
| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| BAT42W | F2 | Approximate 0.009 | 3000 | 30000 | 120000 | 7" reel |

Characteristics (Typical)

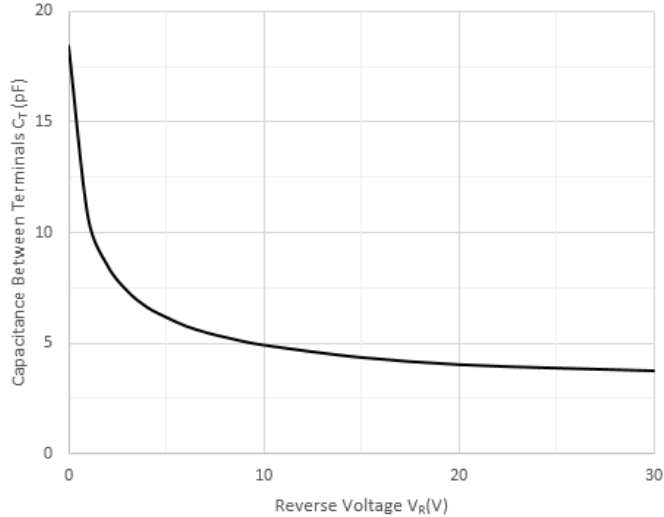
Forward Characteristics



Reverse Characteristics



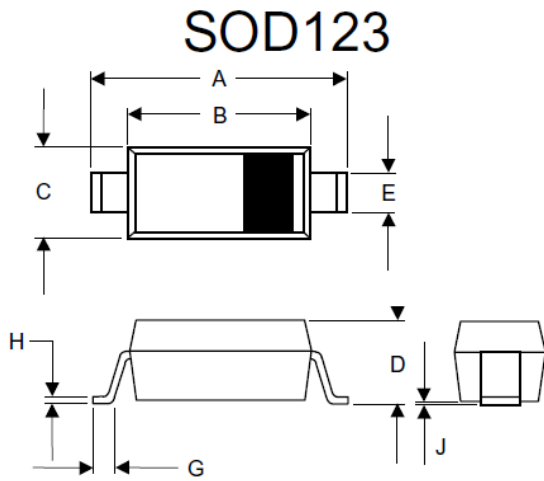
Capacitance Characteristics





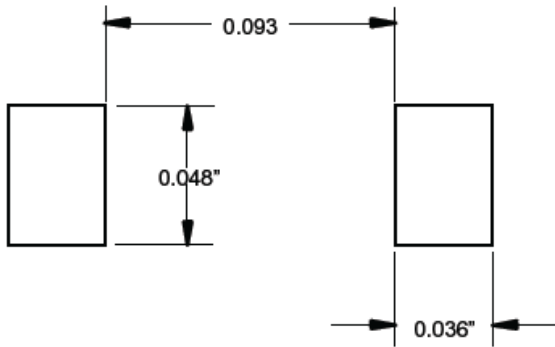
BAT42W

■ Outline Dimensions



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|-------|-------|-------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | .140 | .152 | 3.55 | 3.85 | |
| B | .100 | .112 | 2.55 | 2.85 | |
| C | .055 | .071 | 1.40 | 1.80 | |
| D | ----- | .053 | ----- | 1.35 | |
| E | .012 | .031 | 0.30 | .78 | |
| G | .006 | ----- | 0.15 | ----- | |
| H | ----- | .01 | ----- | .25 | |
| J | ----- | .006 | ----- | .15 | |

■ Soldering Footprint



Unit: inches



BAT42W

Disclaimer

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