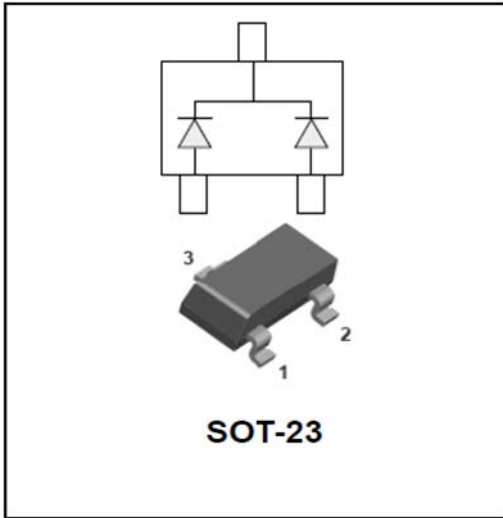


Small-Signal Fast Switching Diodes



Features

- V_R 100V
- I_{FAV} single diode loaded 215mA
double diode loaded 125mA

Typical Applications

- Low-Leakage

Mechanical Data

- **Package:** SOT23
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:** JX

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

| PARAMETER | SYMBOL | UNIT | Conditions | VALUE |
|---------------------------------|-----------|------------------|------------------------------------|-------------|
| Repetitive peak reverse voltage | V_{RRM} | V | | 85 |
| Reverse voltage | V_R | V | $I_R=100\mu\text{A}$ | 100 |
| Peak forward surge current | I_{FSM} | A | Non-Repetitive $t = 1 \mu\text{s}$ | 4 |
| Average forward current | I_{FAV} | mA | single diode loaded | 215 |
| | | | double diode loaded | 125 |
| Power dissipation | P_{tot} | mW | | 250 |
| Maximum junction temperature | T_j | $^\circ\text{C}$ | | 150 |
| 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 | Min | Max |
|-------------------------|----------|------|--|-----|------|
| Breakdown Voltage | V_R | V | $I_R=100\mu\text{A}$ | 100 | |
| Forward Voltage | V_F | V | $I_F=1\text{mA}$ | | 0.9 |
| | | | $I_F=10\text{mA}$ | | 1.0 |
| | | | $I_F=50\text{mA}$ | | 1.1 |
| | | | $I_F=150\text{mA}$ | | 1.25 |
| Reverse Leakage Current | I_R | nA | $V_R=75\text{V}$ | | 5 |
| Capacitance | C | pF | $V_R=0\text{V}, f=1\text{MHz}$ | | 4 |
| Reverse Recovery Time | T_{rr} | us | $I_F=I_R=10\text{mA}, I_{rr}=0.1 \cdot I_R, R_L=100\Omega$ | | 3 |

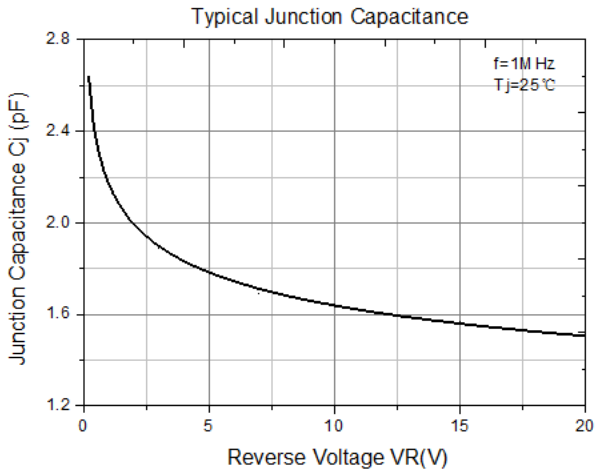
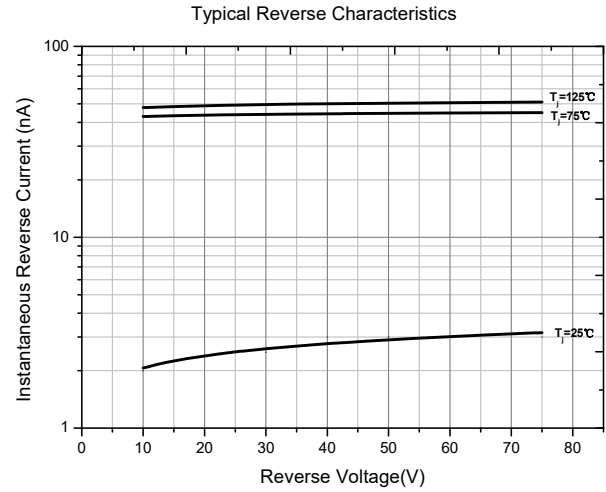
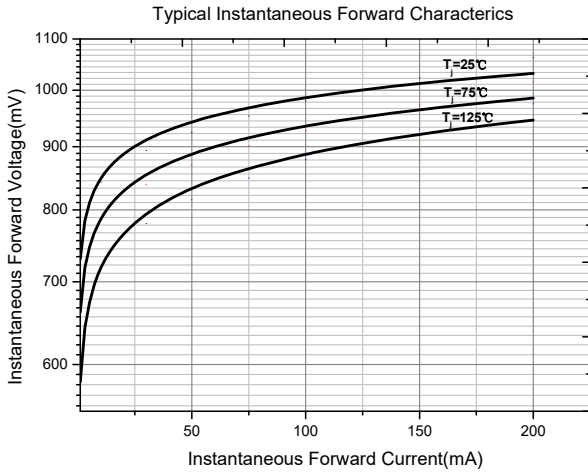


BAV170

Ordering Information (Example)

| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| BAV170 | F2 | Approximate 0.008 | 3000 | 30000 | 120000 | 7" reel |

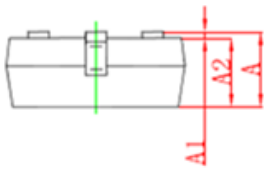
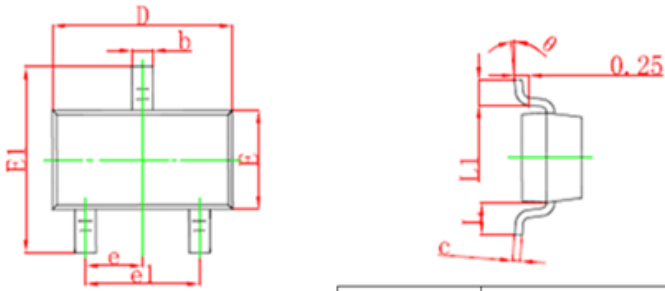
Characteristics (Typical)





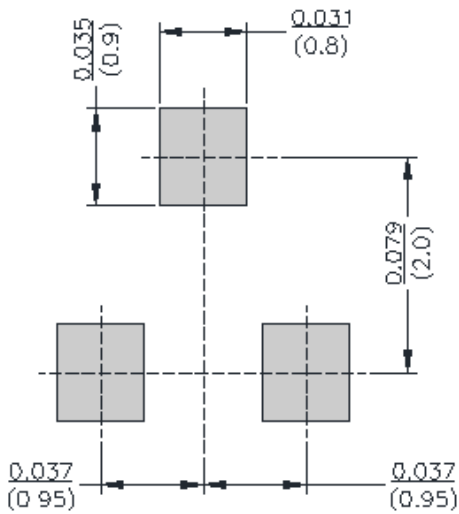
BAV170

■SOT-23 Package Outline Dimensions



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min | Max | Min | Max |
| A | 0.900 | 1.150 | 0.035 | 0.045 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 0.900 | 1.050 | 0.035 | 0.041 |
| b | 0.300 | 0.500 | 0.012 | 0.020 |
| c | 0.100 | 0.200 | 0.004 | 0.008 |
| D | 2.800 | 3.000 | 0.110 | 0.118 |
| E | 1.200 | 1.400 | 0.047 | 0.055 |
| E1 | 2.250 | 2.550 | 0.089 | 0.100 |
| e | 0.950TYP | | 0.037TYP | |
| e1 | 1.800 | 2.000 | 0.071 | 0.079 |
| L | 0.550REF | | 0.022REF | |
| L1 | 0.300 | 0.500 | 0.012 | 0.020 |
| θ | 0° | 8° | 0° | 8° |

■SOT-23Suggested Pad Layout





BAV170

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