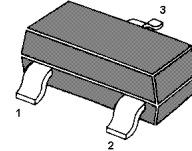
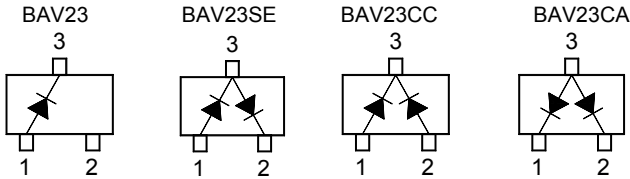


BAV23 / SE / CC / CA

Silicon Epitaxial Planar Diodes

High voltage switching diode



BAV23 Marking Code: **HC**
 BAV23SE Marking Code: **PY**
 BAV23CC Marking Code: **PZ**
 BAV23CA Marking Code: **RA**
 SOT-23 Plastic Package

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

| Parameter | Symbol | Value | Unit |
|--|-----------------|---|--------------------|
| Maximum Repetitive Reverse Voltage | V_{RRM} | 250 | V |
| Reverse Voltage | V_R | 200 | V |
| Forward Current | $I_{F(AV)}$ | 400 | mA |
| Repetitive Peak Forward Current | I_{FRM} | 625 | mA |
| Non-repetitive Peak Forward Surge Current | I_{FSM} | 1.7 3 9 | A |
| | | at $t = 10\text{ ms}$ at $t = 100\text{ }\mu\text{s}$ at $t = 1\text{ }\mu\text{s}$ | |
| Power Dissipation | P_{tot} | 350 | mW |
| Thermal Resistance Junction to Ambient Air | $R_{\theta JA}$ | 357 | $^\circ\text{C/W}$ |
| Operating Junction and Storage Temperature Range | T_j, T_{stg} | - 65 to + 150 | $^\circ\text{C}$ |

Characteristics at $T_a = 25\text{ }^\circ$

| Parameter | Symbol | Min. | Max. | Unit |
|--|-------------|--------|------------|---------------------|
| Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$ | $V_{(BR)R}$ | 250 | - | V |
| Forward Voltage at $I_F = 100\text{ mA}$ at $I_F = 200\text{ mA}$ | V_F | - - | 1 1.25 | V |
| Reverse Current at $V_R = 200\text{ V}, T_j = 25\text{ }^\circ\text{C}$ at $V_R = 200\text{ V}, T_j = 150\text{ }^\circ\text{C}$ | I_R | - - | 100 100 | nA μA |
| Total Capacitance at $V_R = 0\text{ V}, f = 1\text{ MHz}$ | C_{tot} | - | 5 | pF |
| Reverse Recovery Time at $I_F = I_R = 30\text{ mA}, I_{rr} = 0.1 \times I_R, R_L = 100\text{ }\Omega$ | t_{rr} | - | 50 | ns |

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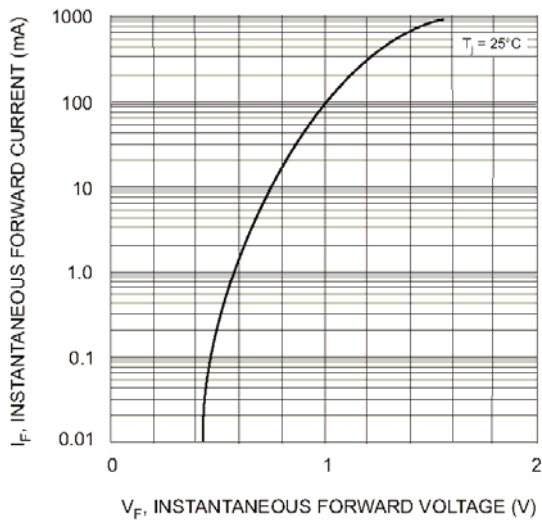


Fig. 1 Forward Characteristics

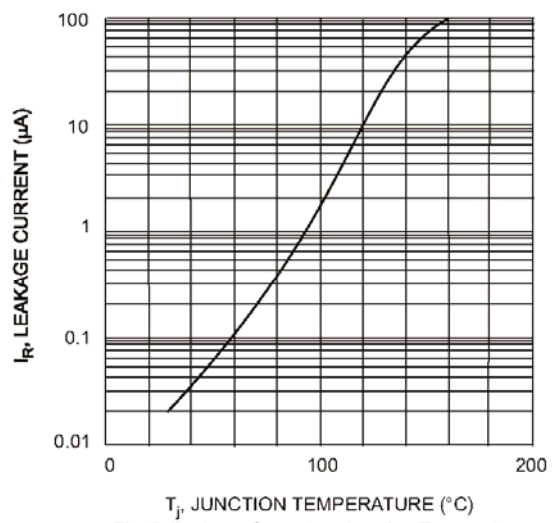


Fig. 2 Leakage Current vs Junction Temperature