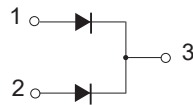
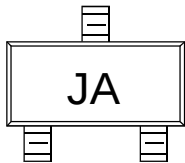
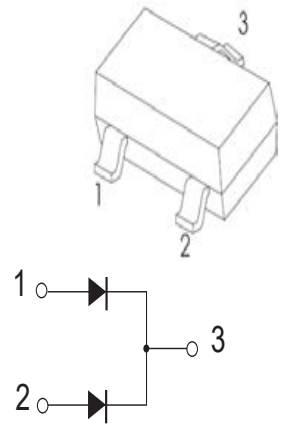


**SOT-23 Plastic-Encapsulate Diodes****BAV74****Switching Diodes****FEATURES**

- Fast Switching Speed, High Conductance
- For General Purpose Switching Applications
- Surface Mount Package Ideally Suited for Automatic Insertion

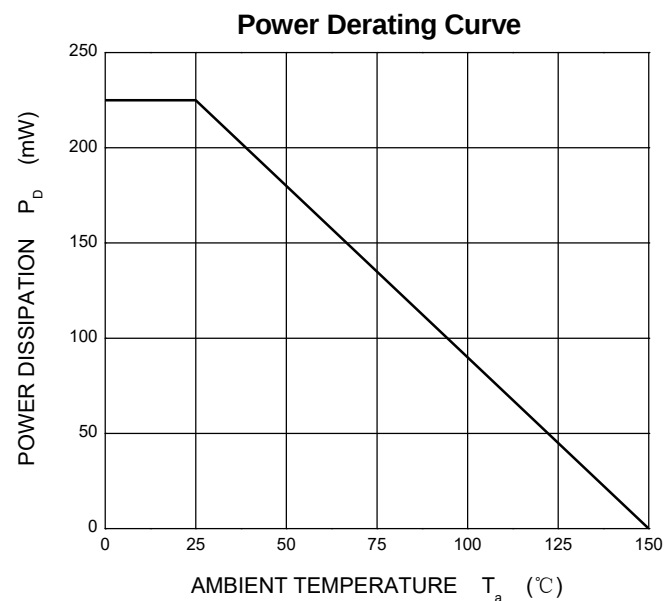
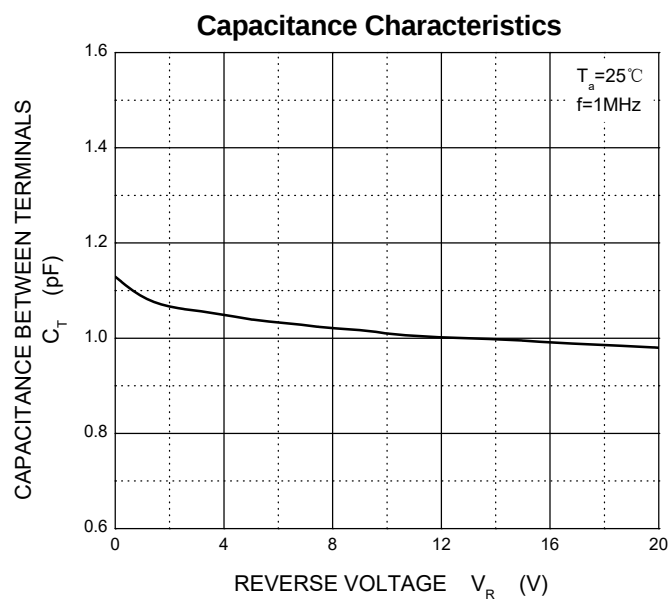
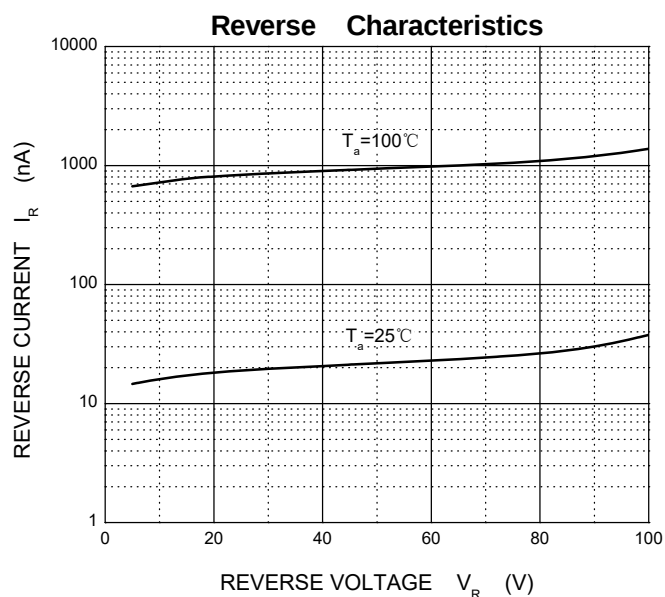
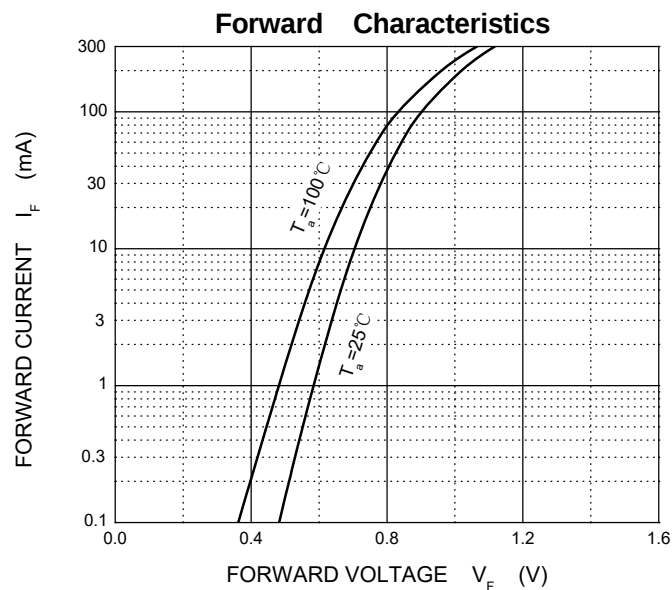
**MARKING****Equivalent Circuit****SOT-23****MAXIMUM RATINGS** ( $T_a=25^{\circ}\text{C}$  unless otherwise noted)

| Parameter                                                    | Symbol            | Value    | Unit                 |
|--------------------------------------------------------------|-------------------|----------|----------------------|
| Non-Repetitive Peak Reverse Voltage<br>DC Blocking Voltage   | $V_{RM}$<br>$V_R$ | 50       | V                    |
| Average Rectified Output Current                             | $I_O$             | 200      | mA                   |
| Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$ | $I_{FSM}$         | 2.0      | A                    |
| Power Dissipation                                            | $P_D$             | 225      | mW                   |
| Thermal Resistance From Junction to Ambient                  | $R_{\theta JA}$   | 556      | $^{\circ}\text{C/W}$ |
| Operation Junction and Storage Temperature Range             | $T_J, T_{STG}$    | -55~+150 | $^{\circ}\text{C}$   |

**ELECTRICAL CHARACTERISTICS** ( $T_a=25^{\circ}\text{C}$  unless otherwise specified)

| Parameter                       | Symbol     | Test conditions                                                  | Min | Max | Unit          |
|---------------------------------|------------|------------------------------------------------------------------|-----|-----|---------------|
| Reverse breakdown voltage       | $V_{(BR)}$ | $I_R=5\mu\text{A}$                                               | 50  |     | V             |
| Reverse voltage leakage current | $I_R$      | $V_R=50\text{V}$                                                 |     | 0.1 | $\mu\text{A}$ |
| Forward voltage                 | $V_F$      | $I_F=100\text{mA}$                                               |     | 1   | V             |
| Diode Capacitance               | $C_D$      | $V_R=0, f=1\text{MHz}$                                           |     | 2   | pF            |
| Reveres recovery time           | $t_{rr}$   | $I_F=I_R=10\text{mA}, R_L=100\Omega,$<br>$I_{rr}=0.1 \times I_R$ |     | 4   | ns            |

## Typical Characteristics



Package Outline Dimensions (SOT-23)



| 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      | 0.080                     | 0.150 | 0.003                | 0.006 |
| 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      | 0.950 TYP                 |       | 0.037 TYP            |       |
| e1     | 1.800                     | 2.000 | 0.071                | 0.079 |
| L      | 0.550 REF                 |       | 0.022 REF            |       |
| L1     | 0.300                     | 0.500 | 0.012                | 0.020 |
| θ      | 0°                        | 8°    | 0°                   | 8°    |

Suggested Pad Layout (SOT-23)



- Note:
- 1.Controlling dimension:in millimeters.
  - 2.General tolerance:± 0.05mm.
  - 3.The pad layout is for reference purposes only.