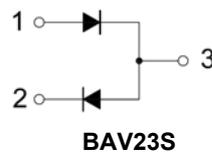
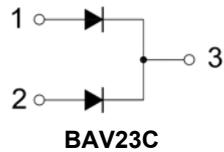
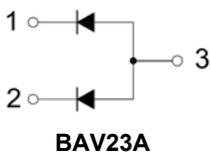


Features

- Fast switching speed
- High conductance
- For general purpose switching applications

Configurations



Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

| Parameter | Symbol | Value | Unit |
|---|------------------|-------------|------|
| Maximum Repetitive Reverse Voltage | V _{RRM} | 250 | V |
| Working Peak Reverse Voltage | V _{RWM} | 175 | V |
| Reverse Voltage | V _R | | |
| Average Rectified Output Current | I _O | 225 | mA |
| Non-Repetitive Peak Forward Surge Current | I _{FSM} | 1.7 | A |
| Power Dissipation | P _D | 350 | mW |
| Thermal Resistance, Junction-to-Ambient | R _{θJA} | 357 | °C/W |
| Operating Junction Temperature Range | T _J | -55 To +150 | °C |
| Storage Temperature Range | T _{STG} | -55 To +150 | °C |

Electrical Characteristics (T_A=25°C unless otherwise noted)

| Parameter | Symbol | Conditions | Min. | Max. | Unit |
|---------------------------|------------------|--|------|------|------|
| Reverse Breakdown Voltage | V _{BR} | I _R =100μA | 250 | - | V |
| Forward Voltage | V _F | I _F =100mA | - | 1 | V |
| | | I _F =200mA | - | 1.25 | |
| Reverse Current | I _R | V _R =250V | - | 0.1 | μA |
| Total Capacitance | C _{tot} | V _R =0, f=1MHz | - | 5 | pF |
| Reverse Recovery Time | t _{rr} | I _F =I _R =30mA, R _L =100Ω, I _{RR} =0.1×I _R | - | 50 | nS |

Typical Electrical Characteristic Curves

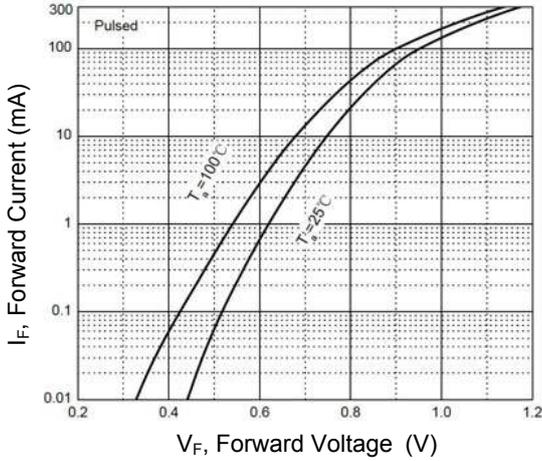


Figure 1. Forward Characteristics

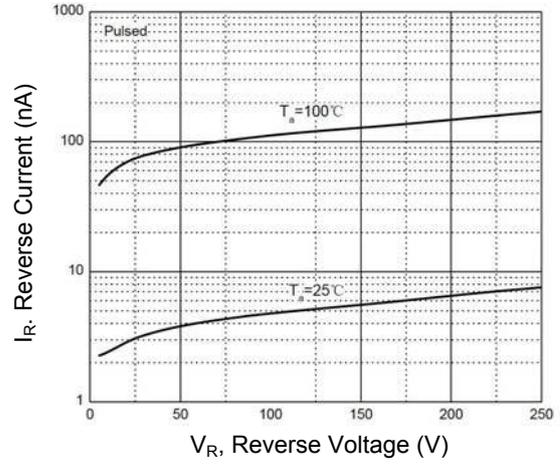


Figure 2. Reverse Characteristics

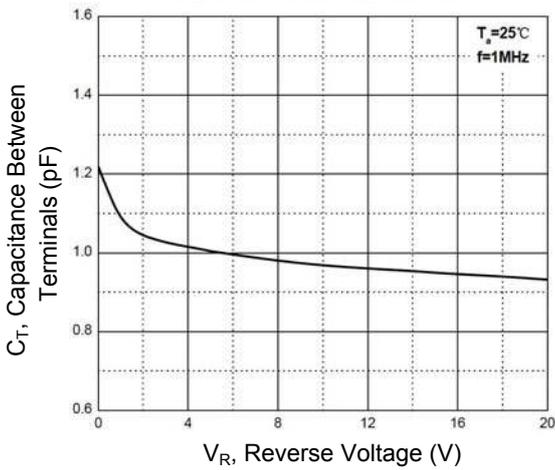


Figure 3. Capacitance Characteristics

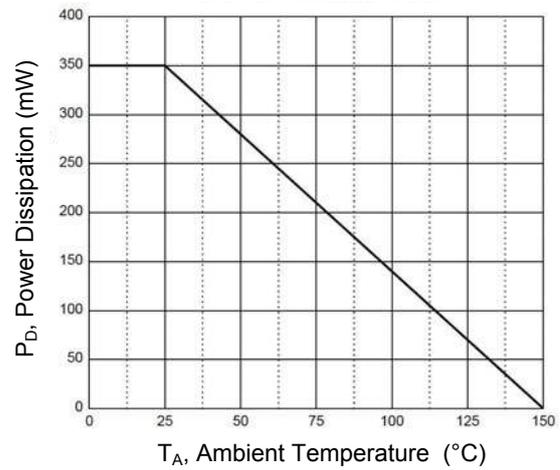
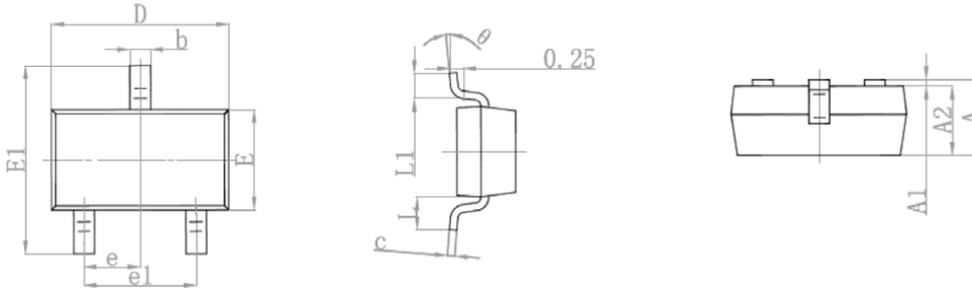


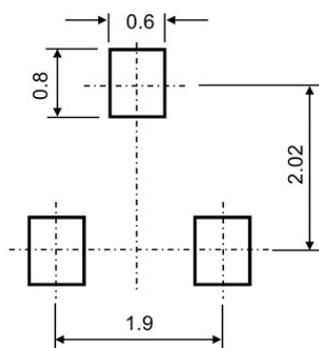
Figure 4. Power Derating Curve

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° |

Recommended Pad Layout



Note:

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

Order Information

| Device | Package | Marking | Carrier | Quantity |
|--------|---------|---------|-------------|-----------------|
| BAV23A | SOT-23 | KT7 | Tape & Reel | 3,000pcs / Reel |
| BAV23C | SOT-23 | KT6 | Tape & Reel | 3,000pcs / Reel |
| BAV23S | SOT-23 | KL31 | Tape & Reel | 3,000pcs / Reel |