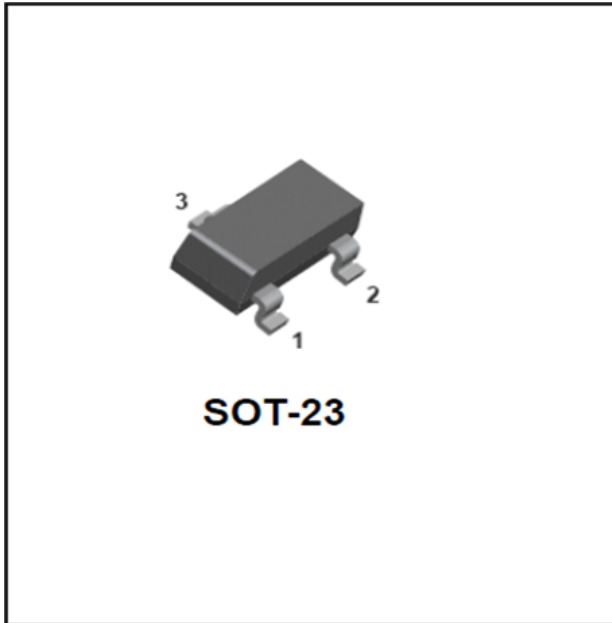


Dual High-voltage Switching Diode



Features

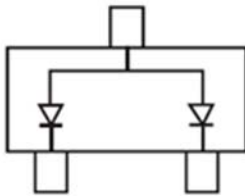
- Epoxy meets UL-94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Fast Switching Speed
- High Conductance
- Part no. with suffix "Q" means AEC-Q101 qualified

Applications

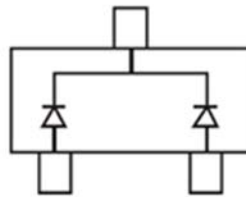
- For General Purpose Switching Applications

Mechanical Data

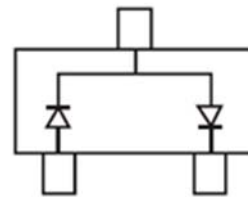
- Case: SOT-23
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102



BAV23AQ Marking: KT7



BAV23CQ Marking: KT6



BAV23SQ Marking: KT31

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

| Item | Symbol | Unit | Value |
|--|------------|--------------------|-------------|
| Repetitive peak reverse voltage | V_{RRM} | V | 250 |
| Forward Continuous Current, Per Leg | I_F | mA | 225 |
| Non-Repetitive Peak Forward Surge Current@ $t_p=10\text{ms}$, | I_{FSM} | A | 1.7 |
| Power Dissipation | P_D | mW | 350 |
| Thermal Resistance from Junction to Ambient | R_{thJA} | $^\circ\text{C/W}$ | 357 |
| Operation Junction Temperature | T_J | $^\circ\text{C}$ | -55 to +150 |
| Storage Temperature | T_{STG} | $^\circ\text{C}$ | -55 to +150 |



BAV23AQ/CQ/SQ

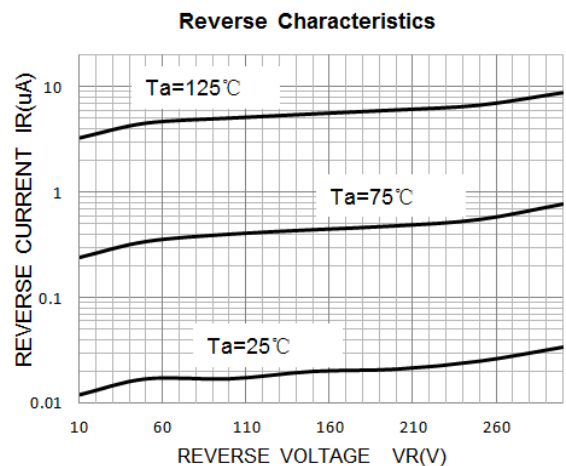
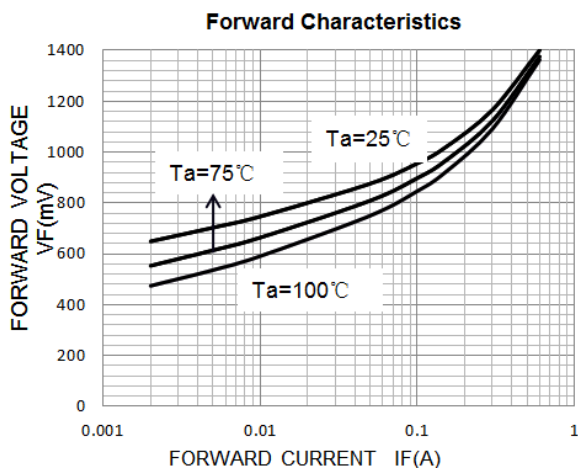
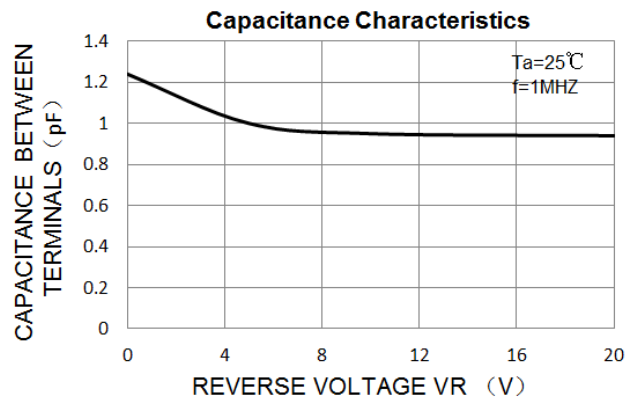
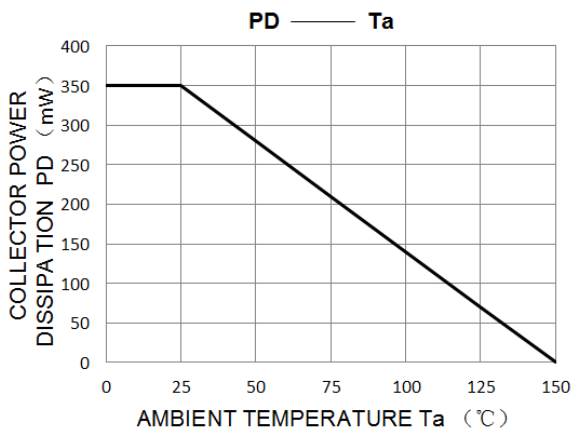
Ordering Information (Example)

| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|------------------|----------------------|-------------------------|----------------------------|---------------|
| BAV23AQ/CQ/SQ | F2 | Approximate 0.01 | 3000 | 30000 | 120000 | 7" reel |

Electrical Characteristics (Ta=25°C Unless otherwise specified, Per Leg)

| Item | Symbol | Unit | Conditions | Min | Typ | Max |
|-----------------------|-----------|---------|---|-----|-----|------|
| Reverse Voltage | V_{BR} | V | $I_R=100\mu A$ | 250 | | |
| Forward Voltage | V_F | V | $I_{FM}=100mA, T_J=25^\circ C$ | | | 1 |
| | | | $I_{FM}=200mA, T_J=25^\circ C$ | | | 1.25 |
| Reverse Current | I_R | μA | $V_R=200V$ | | | 0.1 |
| Total Capacitance | C_{tot} | pF | $f=1.0MHz, V_R=0V$ | | | 5 |
| Reverse Recovery Time | T_{rr} | ns | $I_F=I_R=30mA, V_R=6V, R_L=100\Omega, I_{rr}=3mA$ | | | 50 |

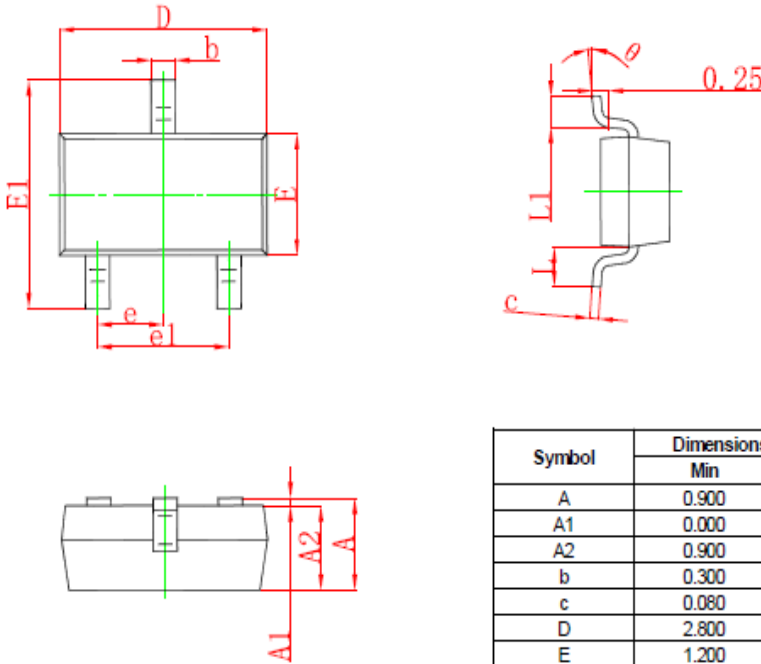
Typical Characteristics (Per Leg)





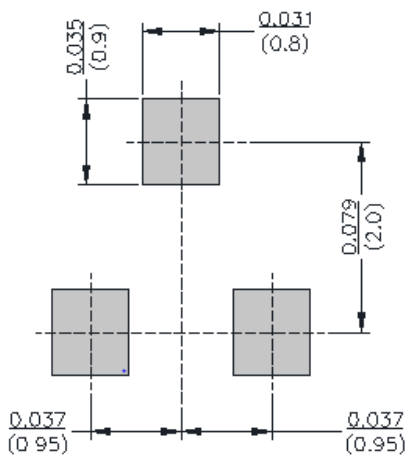
BAV23AQ/CQ/SQ

■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 | 0.080 | 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° |

■SOT-23 Suggested Pad Layout



Unit: inch(mm)



Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.