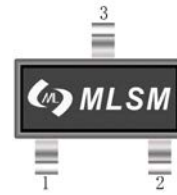
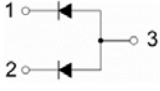
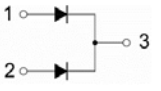
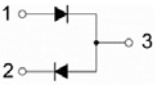


## Features

- Fast Switching Speed
- High Conductance
- For General Purpose Switching Applications



SOT-23 top view

| BAV23A                                                                            | BAV23C                                                                            | BAV23S                                                                            |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|  |  |  |
| Marking:KT7                                                                       | Marking:KT6                                                                       | Marking:KL31                                                                      |
|  |  |  |



Halogen-Free

## Maximum Ratings @Ta=25°C unless otherwise noted

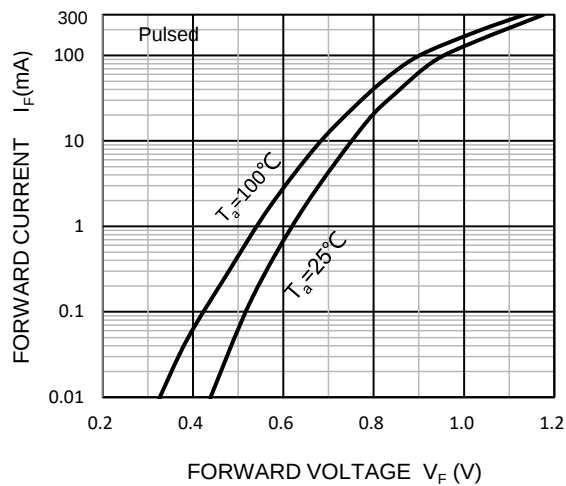
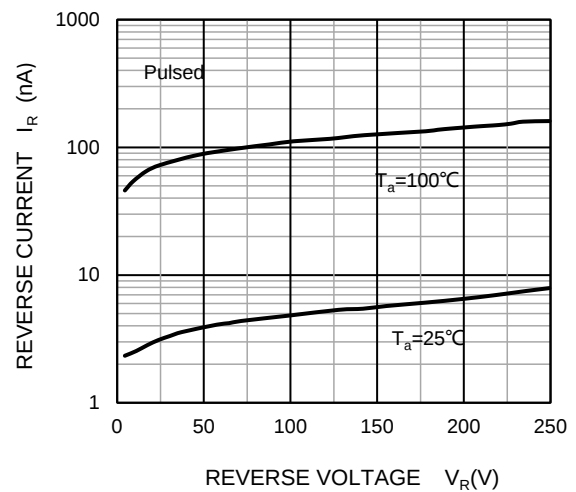
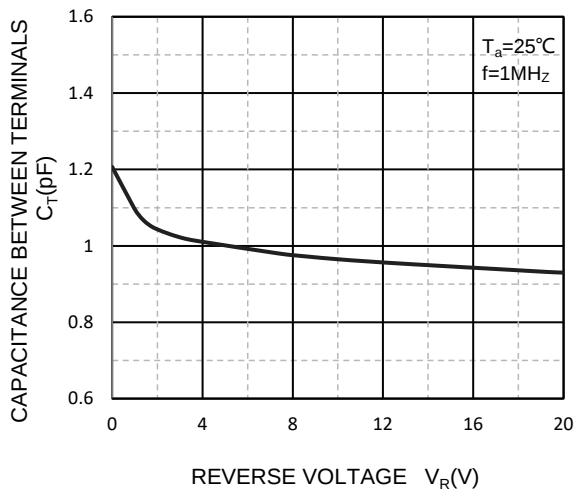
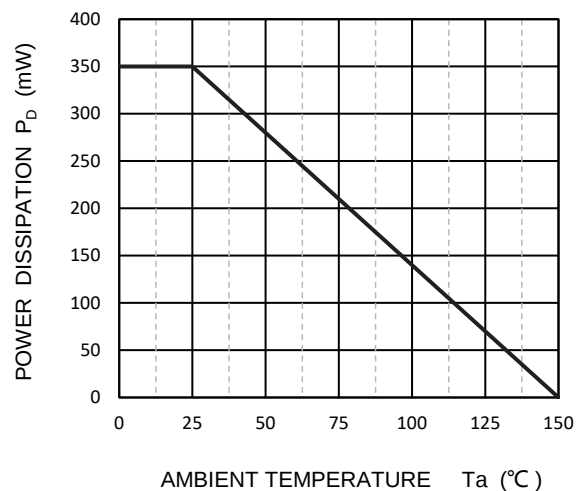
| Symbol          | Parameter                                          | Value     | Unit |
|-----------------|----------------------------------------------------|-----------|------|
| $V_{RRM}$       | Peak Repetitive Reverse Voltage                    | 250       | V    |
| $V_{RWM}$       | Working Peak Reverse Voltage                       |           |      |
| $V_R (RMS)$     | RMS Reverse Voltage                                | 175       | V    |
| $I_O$           | Average Rectified Output Current                   | 225       | mA   |
| $I_{FRM}$       | Repetitive Peak Forward Surge Current              | 625       | mA   |
| $I_{FSM}$       | Non-Repetitive Peak Forward Surge Current @t=8.3ms | 1.7       | A    |
| $P_D$           | Power Dissipation                                  | 350       | mW   |
| $R_{\theta JA}$ | Thermal Resistance from Junction to Ambient        | 357       | °C/W |
| $T_J, T_{STG}$  | Operating Junction and Storage Temperature Range   | -55~ +150 | °C   |

## ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

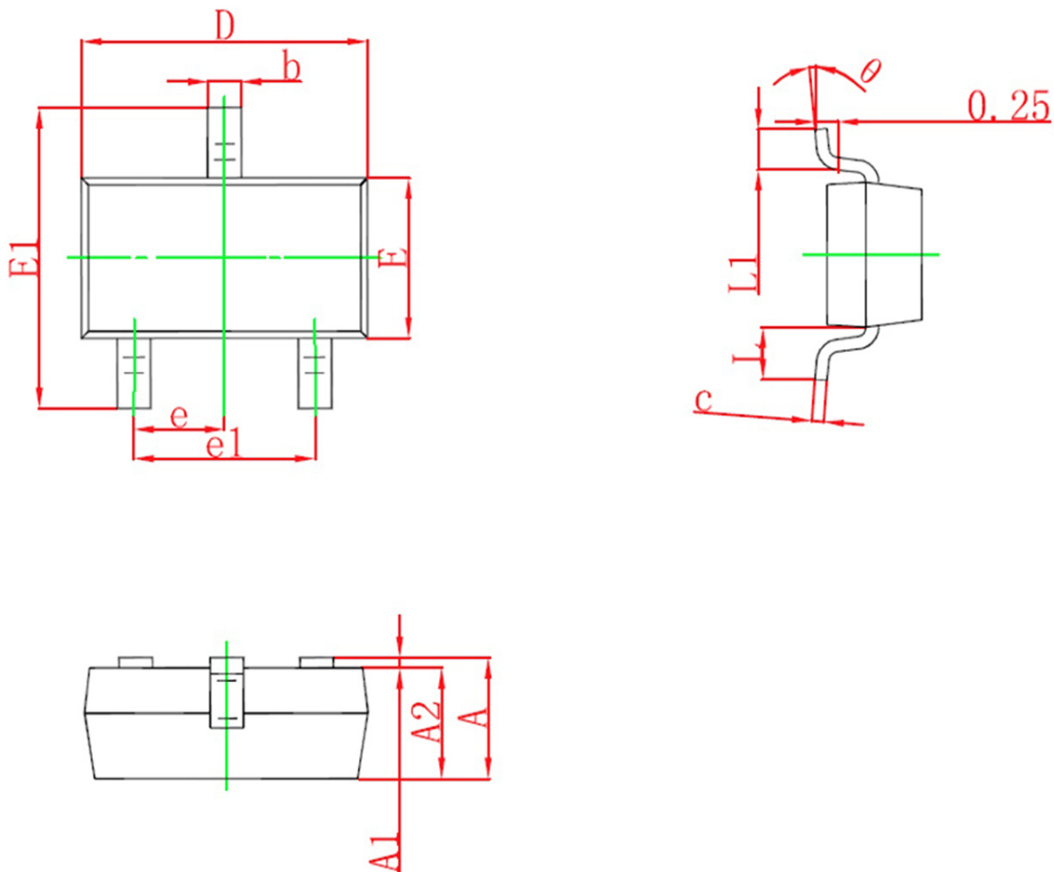
| Symbol     | Parameter             | Condition                                    | Min | Typ | Max  | Unit    |
|------------|-----------------------|----------------------------------------------|-----|-----|------|---------|
| $V_{(BR)}$ | Reverse voltage       | $I_R=100\mu A$                               | 250 | --  | --   | V       |
| $I_R$      | Reverse current       | $V_R=250V$                                   | --  | --  | 0.1  | $\mu A$ |
| $V_F$      | Forward voltage       | $I_F=100mA$                                  | --  | --  | 1.00 | V       |
|            |                       | $I_F=200mA$                                  | --  | --  | 1.25 |         |
| $C_{tot}$  | Total capacitance     | $V_R=0V, f=1MHz$                             | --  | --  | 5    | pF      |
| $t_{rr}$   | Reverse recovery time | $I_F=I_R=30mA, I_{rr}=0.1I_R, R_L=100\Omega$ | --  | --  | 50   | ns      |

**Ordering Information (Example)**

| Type   | Package | Marking | Minimum Package(pcs) | Inner Box Quantity(pcs) | Outer Carton Quantity(pcs) | Delivery Mode |
|--------|---------|---------|----------------------|-------------------------|----------------------------|---------------|
| BAV23A | SOT-23  | KT7     | 3,000                | 45,000                  | 180,000                    | 7"reel        |
| BAV23C | SOT-23  | KT6     | 3,000                | 45,000                  | 180,000                    | 7"reel        |
| BAV23S | SOT-23  | KL31    | 3,000                | 45,000                  | 180,000                    | 7"reel        |

**Typical Operating Characteristics**
**Forward Characteristics**

**Reverse Characteristics**

**Capacitance Characteristics**

**Power Derating Curve**


SOT-23 Package information



| Symbol | Dimensions in Millimeters(mm) |       | 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 |
| E1     | 2.250                         | 2.550 | 0.088                | 0.100 |
| E      | 1.200                         | 1.400 | 0.047                | 0.055 |
| e      | 0.950TYP                      |       | 0.037TYP             |       |
| 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°    |