

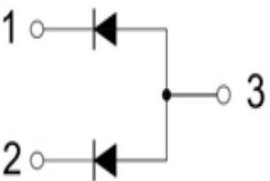
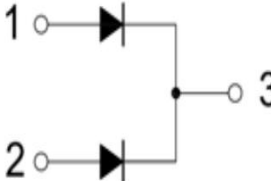
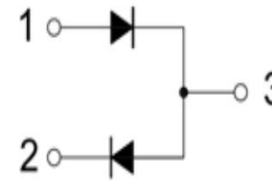
## SOT-23 Plastic-Encapsulate Diodes

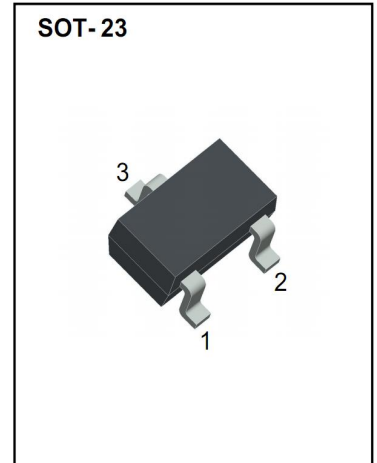
### BAV23/A/C/S

### Switching Diodes

#### FEATURES:

- High Conductance
- Fast Reverse Recovery Time
- For General Purpose Switching Applications

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



Solid dot = Green molding compound device, if none, the normal device.

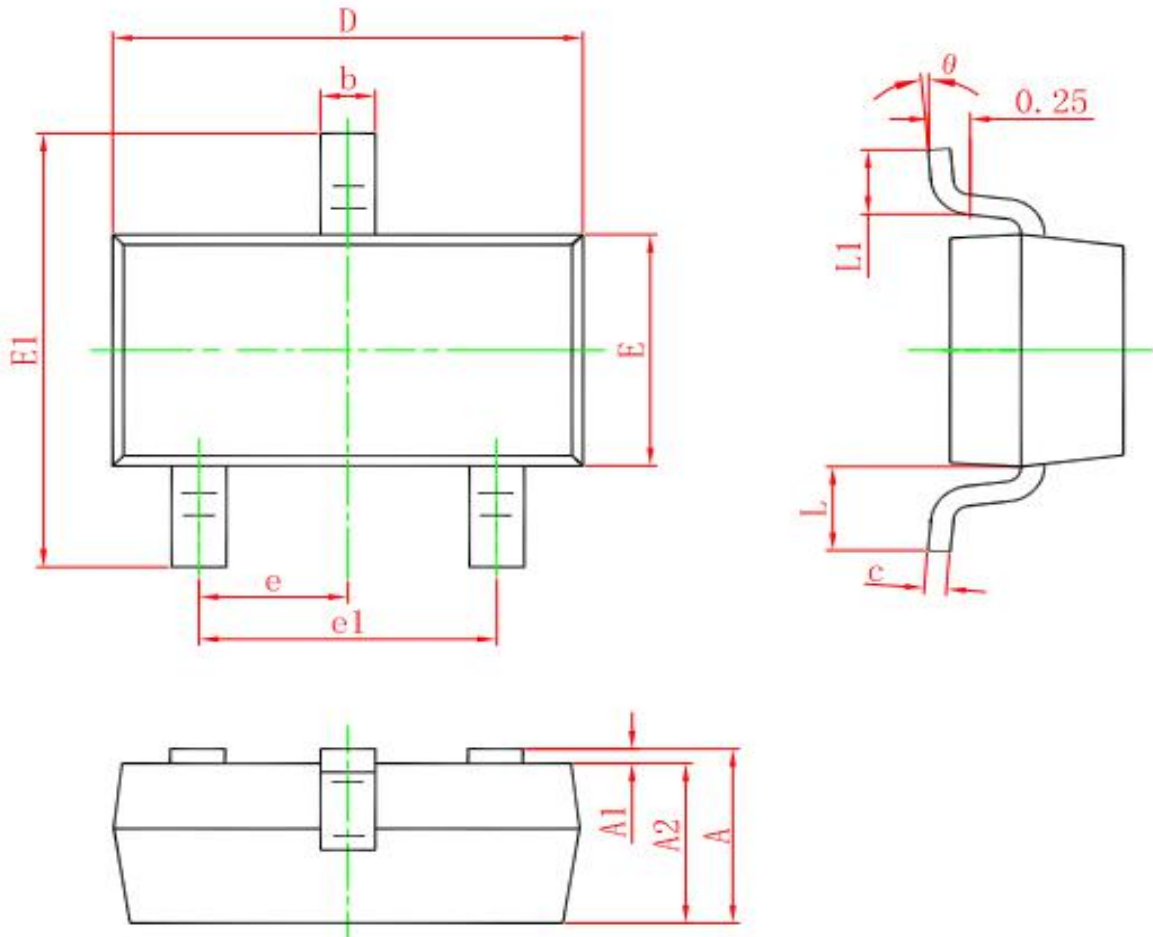
#### Maximum ratings (@Ta=25℃)

| Parameter                                          | Symbol  | Limit    | Unit |
|----------------------------------------------------|---------|----------|------|
| Peak Repetitive Reverse Voltage                    | VRRM    | 250      | V    |
| Working Peak Reverse Voltage                       | VRWM    | 250      | V    |
| RMS Reverse Voltage                                | VR(RMS) | 175      | mA   |
| Average Rectified Output Current                   | IO      | 225      | mA   |
| Non-Repetitive Peak Forward Surge Current @t=8.3ms | IFSM    | 1.7      | A    |
| Power Dissipation                                  | PD      | 350      | mW   |
| Thermal Resistance from Junction to Ambient        | RθJA    | 357      | ℃/W  |
| Junction Temperature                               | TJ      | 150      | ℃    |
| Storage Temperature Range                          | TSTG    | -55~+150 | ℃    |

#### Electrical Characteristics (@Ta=25℃)

| Parameter                 | Symbol          | Test Condition                      | Min | Typ | Max  | Unit |
|---------------------------|-----------------|-------------------------------------|-----|-----|------|------|
| Reverse breakdown voltage | V(BR)           | IR=100μA                            | 250 |     |      | V    |
| Forward voltage           | VF1             | IF=100mA                            |     |     | 1    | V    |
|                           | VF2             | IF=200mA                            |     |     | 1.25 | V    |
| Reverse current           | IR              | VR=250V                             |     |     | 0.1  | uA   |
| Total capacitance         | Ctot            | VR=0V, f=1MHz                       |     |     | 5    | PF   |
| Reverse recovery time     | t <sub>rr</sub> | IF=IR=10mA, I <sub>rr</sub> =0.1×IR |     |     | 50   | nS   |

## 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 |
| $\theta$ | 0°                        | 8°    | 0°                   | 8°    |