

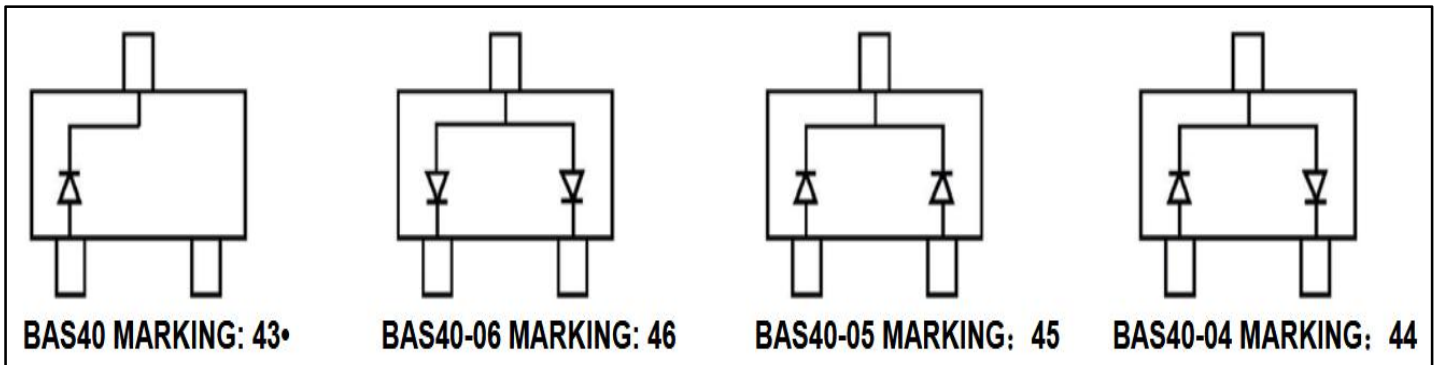
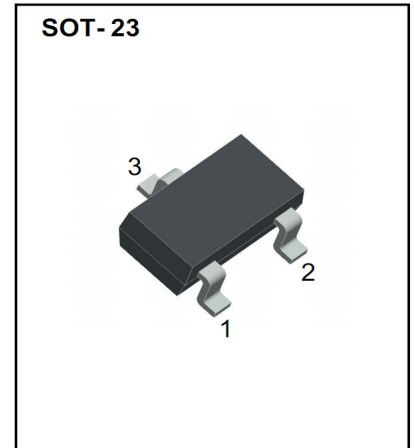
SOT-23 Plastic-Encapsulate Diodes

**BAS40/-04/-05/-06**

**Schottky Diodes**

**FEATURES:**

- Low Forward Voltage
- Fast Switching



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

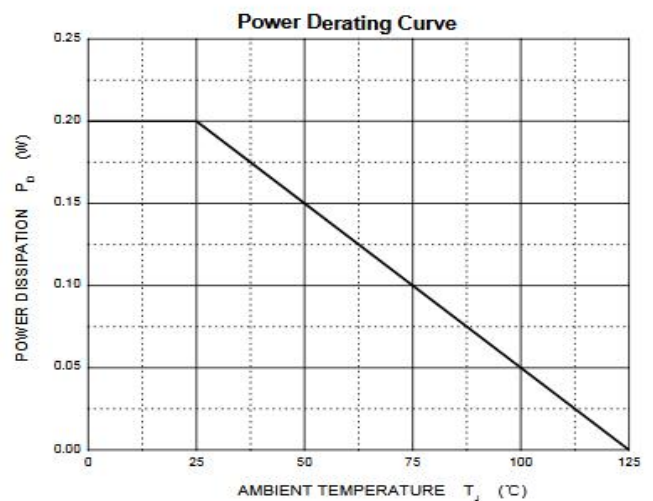
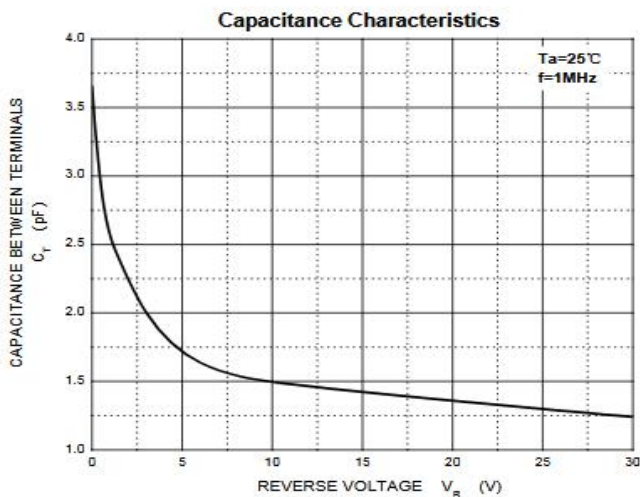
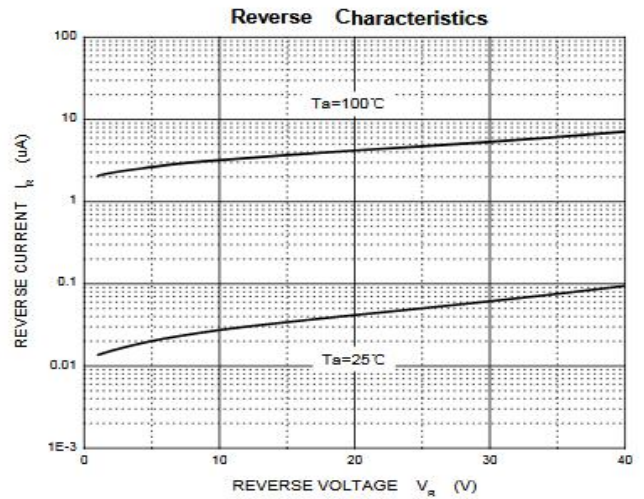
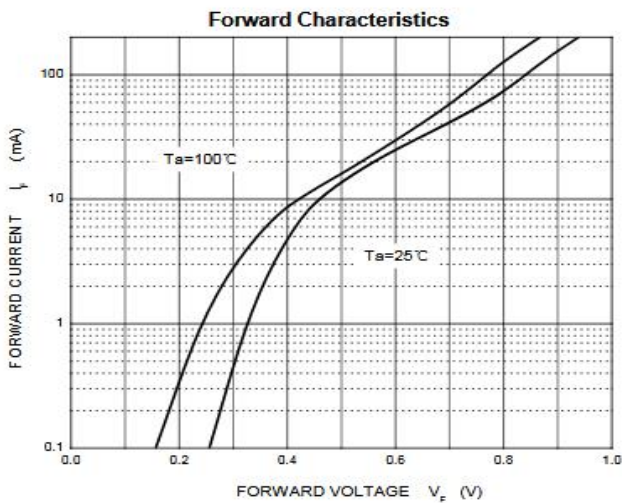
**Maximum ratings (@Ta=25°C)**

| Parameter  | Symbol | Limit    | Unit |
|--|--------|----------|------|
| Peak Repetitive Reverse Voltage                    | VRRM   | 40       | V    |
| Working Peak Reverse Voltage                       | VRWM   | 40       | V    |
| DC Blocking Voltage                                | VR     | 40       | V    |
| Forward Continuous Current                         | IFM    | 200      | mA   |
| Average rectified output current                   | Io     | 200      | mA   |
| Non-Repetitive Peak Forward Surge Current @t=8.3ms | IFSM   | 0.6      | A    |
| Power Dissipation                                  | PD     | 200      | mW   |
| Thermal Resistance from Junction to Ambient        | RθJA   | 500      | °C/W |
| Junction Temperature                               | TJ     | 150      | °C   |
| Storage Temperature Range                          | TSTG   | -55~+150 | °C   |

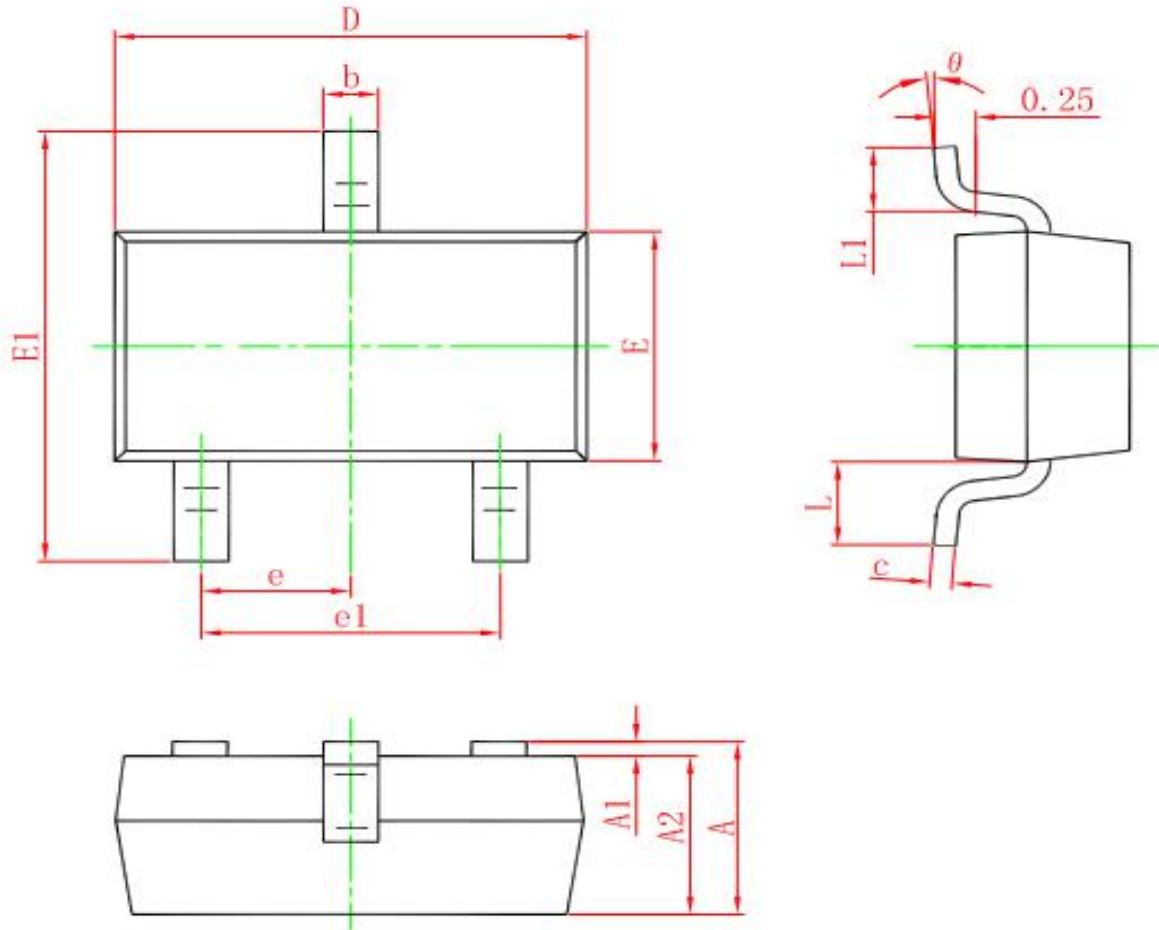
## Electrical Characteristics (@Ta=25°C unless otherwise specified)

| Parameter                       | Symbol          | Test Condition                                | Min | Typ | Max  | Unit |
|---------------------------------|-----------------|---|-----|-----|------|------|
| Reverse breakdown voltage       | V(BR)           | IR=10μA                                       | 40  |     |      | V    |
| Forward voltage                 | VF1             | IF=1mA  |     |     | 380  | mV   |
|                                 | VF2             | IF=40mA                                       |     |     | 1000 | mV   |
| Reverse voltage leakage current | IR              | VR=30V  |     |     | 200  | nA   |
| Diode Capacitance               | Ctot            | VR=0V, f=1MHz                                 |     |     | 5    | PF   |
| Reverse recovery time           | t <sub>rr</sub> | IF=IR=10mA,<br>I <sub>rr</sub> =1mA, RL= 100Ω |     |     | 5    | nS   |

## Typical Characteristics



### 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°    |