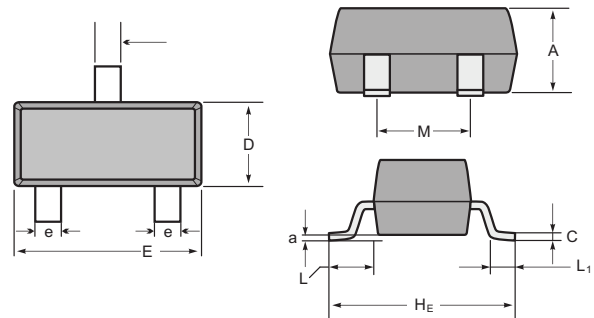
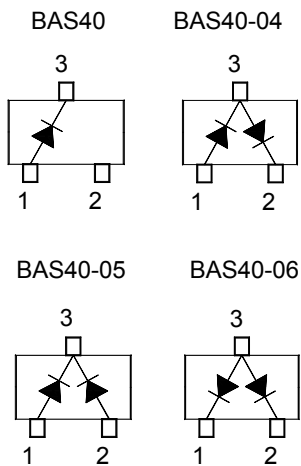


### Features

- Low forward voltage
- Fast switching



SOT-23 mechanical data

| UNIT |     | A   | C    | D   | E   | H <sub>E</sub> | e   | M    | L             | L <sub>1</sub> | a           |
|------|-----|-----|------|-----|-----|----------------|-----|------|---------------|----------------|-------------|
| mm   | max | 1.1 | 0.15 | 1.4 | 3.0 | 2.6            | 0.5 | 1.95 | 0.55<br>(ref) | 0.36<br>(ref)  | 0.0<br>0.15 |
|      | min | 0.9 | 0.08 | 1.2 | 2.8 | 2.2            | 0.3 | 1.7  |               |                |             |
| mil  | max | 43  | 6    | 55  | 118 | 102            | 20  | 77   | 22<br>(ref)   | 14<br>(ref)    | 0.0<br>6    |
|      | min | 35  | 3    | 47  | 110 | 87             | 12  | 67   |               |                |             |

### Absolute Maximum Ratings (T<sub>a</sub> = 25 °C)

| Parameter                                            | Symbol           | Value         | Unit |
|------------------------------------------------------|------------------|---------------|------|
| Repetitive Peak Reverse Voltage                      | V <sub>RRM</sub> | 40            | V    |
| DC Blocking Voltage                                  | V <sub>R</sub>   | 40            | V    |
| Forward Continuous Current                           | I <sub>F</sub>   | 200           | mA   |
| Peak Forward Surge Current (at t <sub>p</sub> < 1 s) | I <sub>FSM</sub> | 600           | mA   |
| Junction Temperature                                 | T <sub>J</sub>   | 150           | °C   |
| Storage Temperature Range                            | T <sub>S</sub>   | - 55 to + 150 | °C   |

# BAS40/-04/-05/-06

## Characteristics at $T_a = 25\text{ }^{\circ}\text{C}$

| Parameter                                                                                              | Symbol         | Min.   | Max.      | Unit   |
|--------------------------------------------------------------------------------------------------------|----------------|--------|-----------|--------|
| Forward Voltage<br>at $I_F = 1\text{ mA}$<br>at $I_F = 40\text{ mA}$                                   | $V_F$<br>$V_F$ | -<br>- | 0.38<br>1 | V<br>V |
| Reverse Current<br>at $V_R = 25\text{ V}$                                                              | $I_R$          | -      | 200       | nA     |
| Reverse Breakdown Voltage<br>at $I_R = 10\text{ }\mu\text{A}$                                          | $V_{(BR)R}$    | 40     | -         | V      |
| Reverse Recovery Time<br>from $I_F = 10\text{ mA}$ through $I_R = 10\text{ mA}$ to $I_R = 1\text{ mA}$ | $t_{rr}$       | -      | 5         | ns     |
| Total Capacitance<br>at $V_R = 0\text{ V}$ , $f = 1\text{ MHz}$                                        | $C_T$          | -      | 5         | pF     |

## RATING AND CHARACTERISTIC CURVES (BAS40/-04/-05/-06)

