

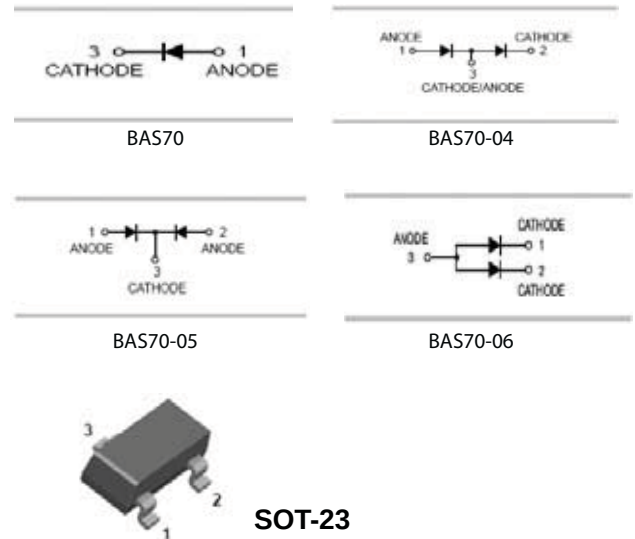
## Surface Mount Barrier Diodes: BAS70/-04/-05/-06

### Features:

- Low turn-on voltage
- Fast switching
- Ultra-small surface mount package
- PN Junction guard ring for transient and ESD protection
- Ultra small surface mount package

### Applications:

- High speed switching applications
- Circuit protecting
- Voltage clamping



**Maximum Rating @ Ta=25°C** (unless otherwise specified):

| Characteristic:                                          | Symbol:    | Limits:     | Unit: |
|----------------------------------------------------------|------------|-------------|-------|
| Peak repetitive reverse voltage                          | $V_{RRM}$  | 70          | V     |
| Working peak reverse voltage                             | $V_{RWM}$  |             |       |
| Diode reverse voltage                                    | $V_R$      |             |       |
| Forward continuous current                               | $I_F$      | 70          | mA    |
| Non-repetitive peak forward surge current @ $t_p=1\mu s$ | $I_{FS}$   | 100         | mA    |
| Power dissipation                                        | $P_D$      | 200         | mW    |
| Thermal resistance, Junction to ambient air              | $R_{thJA}$ | 625         | °C/W  |
| Junction temperature                                     | $T_J$      | 150         | °C    |
| Storage temperature range                                | $T_{stg}$  | -65 to +150 | °C    |

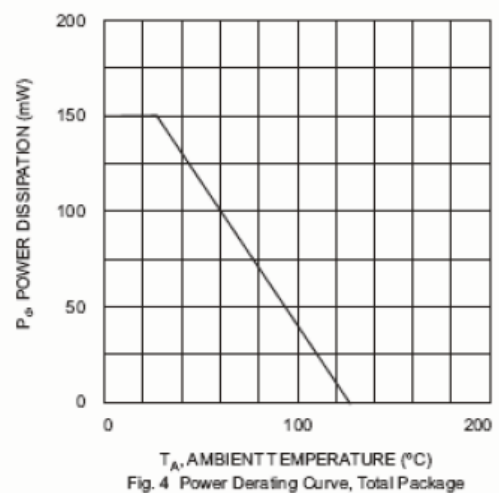
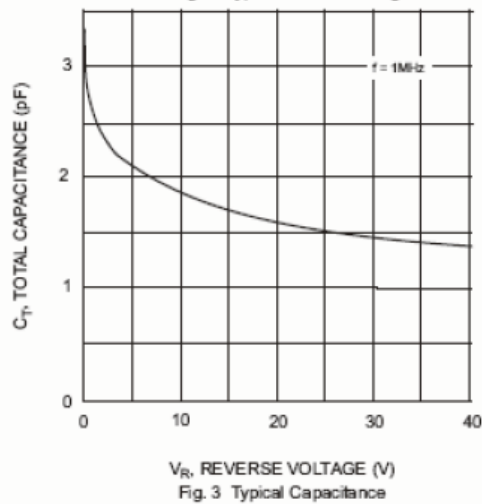
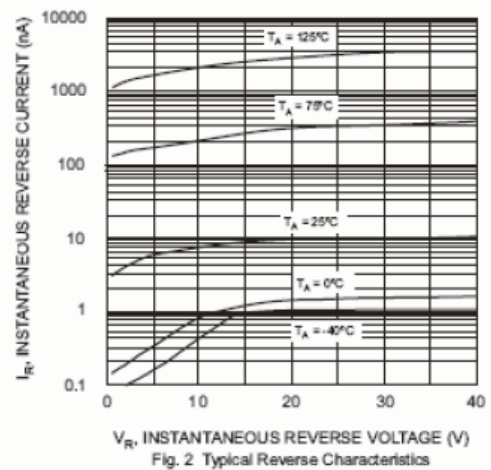
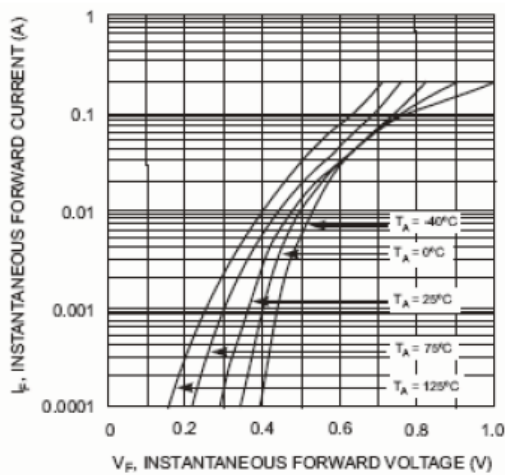
**Electrical Characteristics @ Ta=25°C** (unless otherwise specified):

| Characteristic:           | Symbol:     | Min | Max         | Unit: | Test Condition:                                               |
|---------------------------|-------------|-----|-------------|-------|---------------------------------------------------------------|
| Reverse Breakdown Voltage | $V_{(BR)R}$ | 70  | -           | V     | $I_R = 10 A$                                                  |
| Forward voltage           | $V_F$       | -   | 410<br>1000 | mV    | $t_p < 300\mu s, I_F = 1.0mA$<br>$t_p < 300\mu s, I_F = 15mA$ |
| Reverse leakage current   | $I_R$       | -   | 100         | nA    | $t_p < 300\mu s, V_R = 50V$                                   |
| Junction capacitance      | $C_j$       | -   | 2           | pF    | $V_R = 0V, f = 1.0MHz$                                        |
| Reverse recovery time     | $t_{rr}$    | -   | 5           | ns    | $I_F = I_R = 10mA$<br>$R_L = 100 Ohms$                        |

## Surface Mount Barrier Diodes: BAS70/-04/-05/-06

| Ordering Information | Marking: | Package Code: |
|----------------------|----------|---------------|
| BAS70                | 73       | SOT-23        |
| BAS70-04             | 74       | SOT-23        |
| BAS70-05             | 75       | SOT-23        |
| BAS70-06             | 76       | SOT-23        |

**Typical Characteristics @ Ta=25°C** (unless otherwise specified):

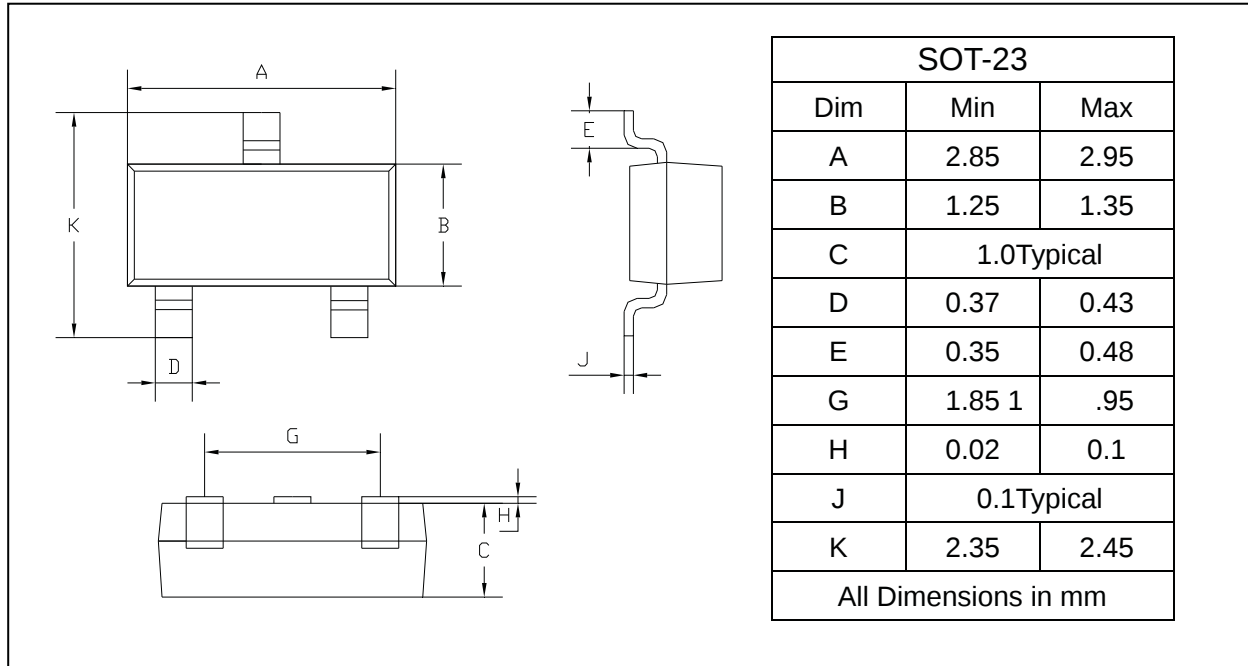


## Surface Mount Barrier Diodes: BAS70-04/-04/-05/-06

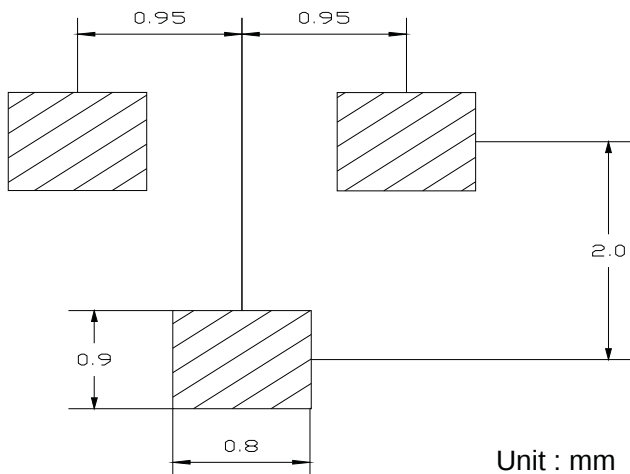
### PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



### SOLDERING FOOTPRINT



### PACKAGE INFORMATION

| Device            | Package | Shipping       |
|-------------------|---------|----------------|
| BAS70/-04/-05/-06 | SOT-23  | 3000/Tape&Reel |