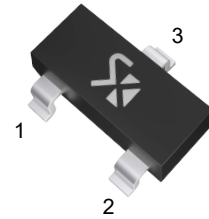


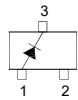
## Surface Mount Schottky Barrier Diode

### Features

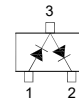
- Low turn-on voltage
- Fast switching
- PN junction guard ring for transient and ESD protection



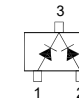
BAS70



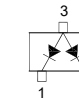
BAS70-04



BAS70-05



BAS70-06



SOT-23 Plastic Package

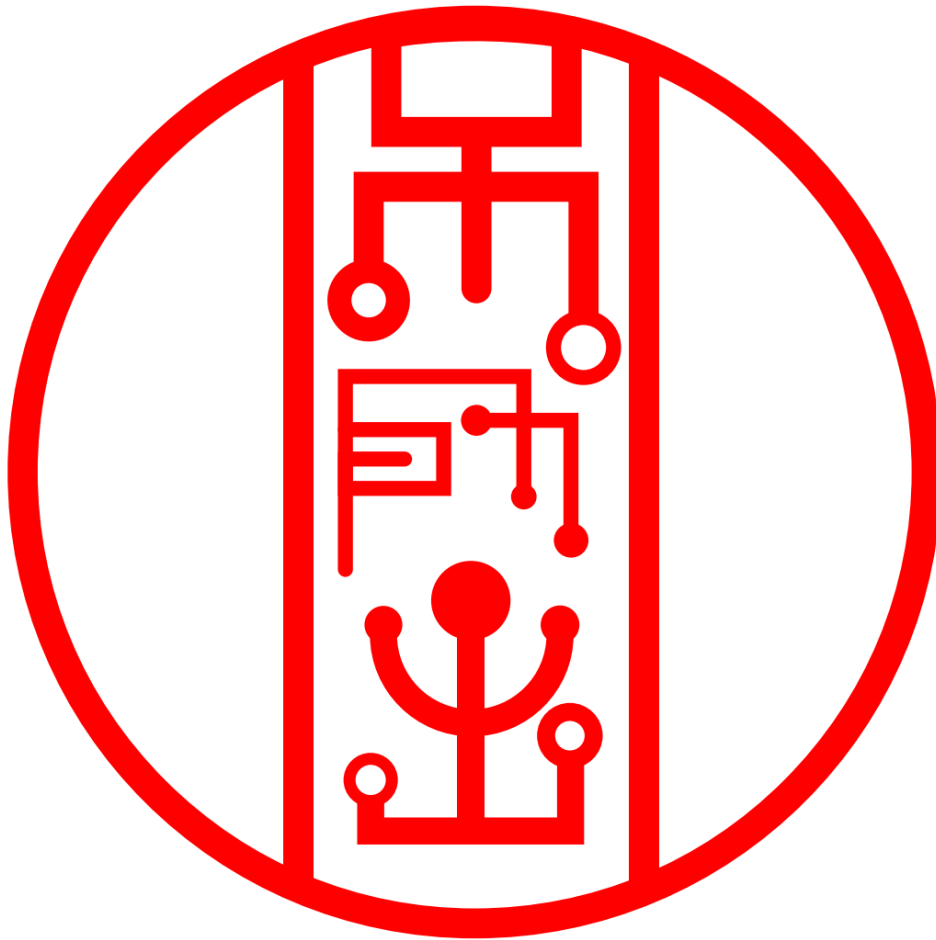
BAS70 Marking Code: **K73**BAS70-04 Marking Code: **K74**BAS70-05 Marking Code: **K75**BAS70-06 Marking Code: **K76**

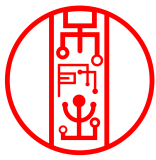
### Absolute Maximum Ratings ( $T_a = 25\text{ }^{\circ}\text{C}$ )

| Parameter                                         | Symbol          | Value         | Unit                 |
|---------------------------------------------------|-----------------|---------------|----------------------|
| Repetitive Peak Reverse Voltage                   | $V_{RRM}$       | 70            | V                    |
| Non-Repetitive Peak Reverse Voltage               | $V_{RSM}$       | 70            | V                    |
| Maximum DC Blocking Voltage                       | $V_R$           | 70            | V                    |
| Average Forward Rectified Current                 | $I_{F(AV)}$     | 70            | mA                   |
| Peak Forward Surge Current ( $t < 10\text{ ms}$ ) | $I_{FSM}$       | 100           | mA                   |
| Power Dissipation                                 | $P_D$           | 200           | mW                   |
| Thermal Resistance Junction to Ambient Air        | $R_{\theta JA}$ | 625           | $^{\circ}\text{C/W}$ |
| Operating Junction Temperature Range              | $T_j$           | - 55 to + 125 | $^{\circ}\text{C}$   |
| Storage Temperature Range                         | $T_{stg}$       | - 65 to + 150 | $^{\circ}\text{C}$   |

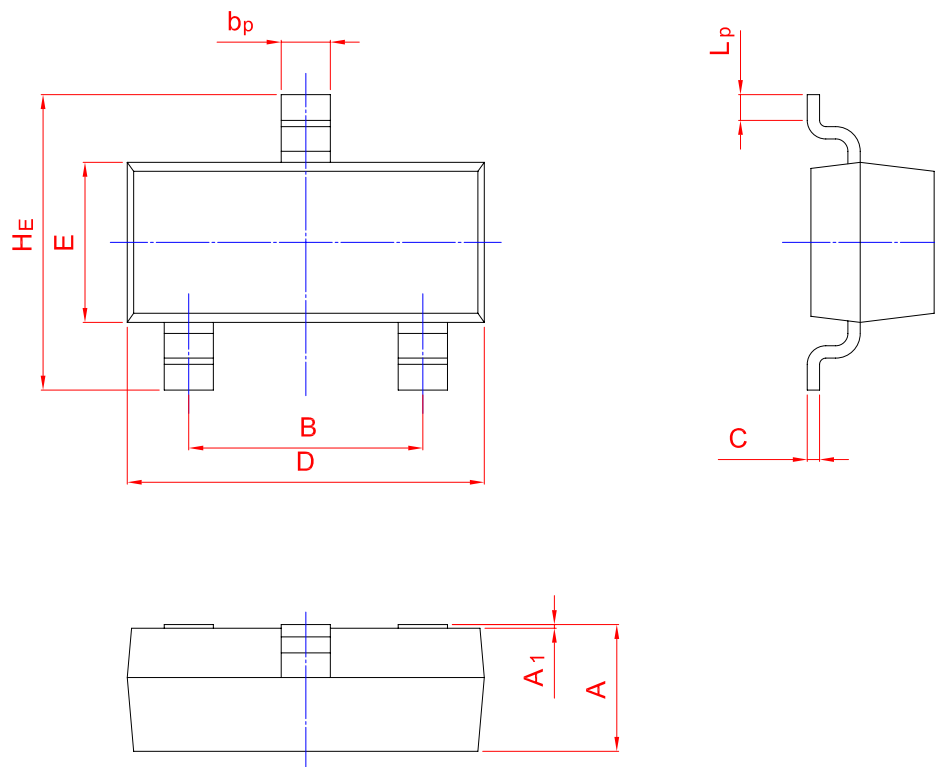
### Characteristics at $T_a = 25\text{ }^{\circ}\text{C}$

| Parameter                                                                                                 | Symbol      | Min.   | Max.      | Unit |
|-----------------------------------------------------------------------------------------------------------|-------------|--------|-----------|------|
| Forward Voltage<br>at $I_F = 1\text{ mA}$<br>at $I_F = 15\text{ mA}$                                      | $V_F$       | -<br>- | 0.41<br>1 | V    |
| Reverse Breakdown Voltage<br>at $I_R = 10\text{ }\mu\text{A}$                                             | $V_{(BR)R}$ | 70     | -         | V    |
| Reverse Current<br>at $V_R = 50\text{ V}$                                                                 | $I_R$       | -      | 100       | nA   |
| Total Capacitance<br>at $V_R = 0$ , $f = 1\text{ MHz}$                                                    | $C_T$       | -      | 2         | pF   |
| Reverse Recovery Time<br>at $I_F = I_R = 10\text{ mA}$ to $I_R = 1\text{ mA}$ , $R_L = 100\text{ }\Omega$ | $t_{rr}$    | -      | 5         | ns   |



**PACKAGE OUTLINE**

Plastic surface mounted package; 3 leads

**SOT-23**

| UNIT | A            | B            | bp           | C            | D            | E            | HE           | A1             | Lp           |
|------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|
| mm   | 1.40<br>0.95 | 2.04<br>1.78 | 0.50<br>0.35 | 0.19<br>0.08 | 3.10<br>2.70 | 1.65<br>1.20 | 3.00<br>2.20 | 0.100<br>0.013 | 0.50<br>0.20 |