

# BAS16

## SWITCHING DIODE

|                |                |              |               |
|----------------|----------------|--------------|---------------|
| <b>VOLTAGE</b> | <b>75 Volt</b> | <b>POWER</b> | <b>225 mW</b> |
|----------------|----------------|--------------|---------------|

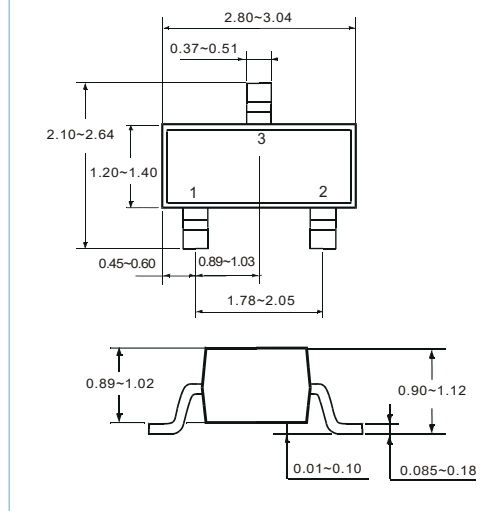
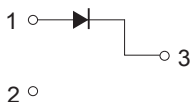
**SOT-23** Unit:mm

### FEATURES

- Fast Switching Speed
- For General Purpose Switching Applications
- Lead free in compliance with EU RoHS
- Marking code: JV

### MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS( $T_A = 25^\circ\text{C}$ unless otherwise noted)

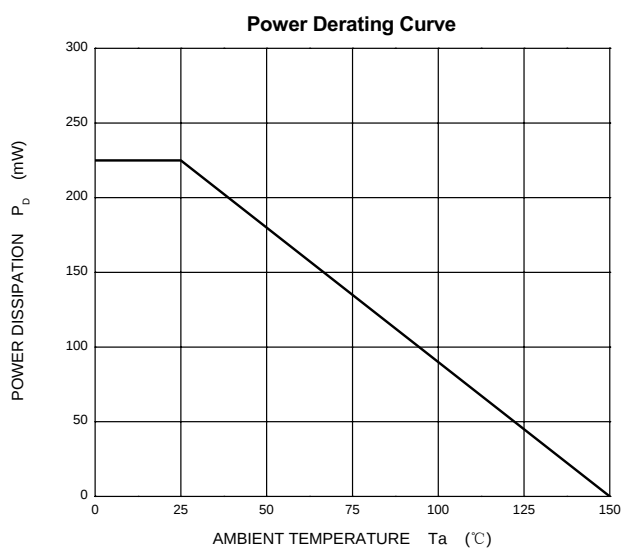
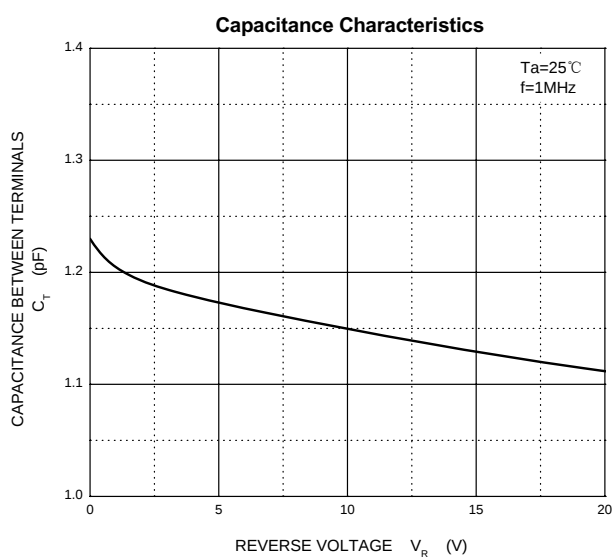
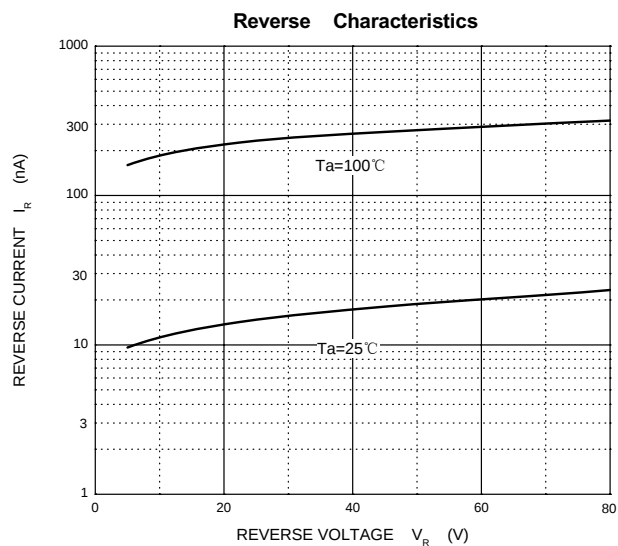
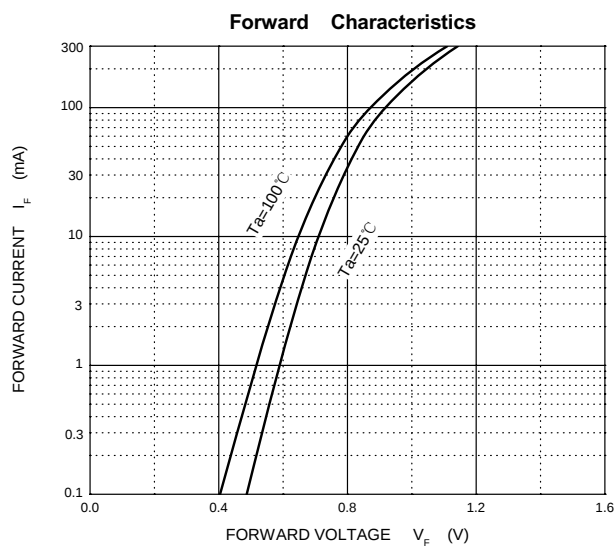
| Parameter                                                    | Symbol          | Limit    | Unit               |
|--------------------------------------------------------------|-----------------|----------|--------------------|
| Non-Repetitive Peak Reverse Voltage                          | $V_{RM}$        | 100      | V                  |
| Peak Repetitive Peak Reverse Voltage                         | $V_{RRM}$       | 75       | V                  |
| Working Peak Reverse Voltage                                 | $V_{RWM}$       |          |                    |
| DC Blocking Voltage                                          | $V_R$           |          |                    |
| RMS Reverse Voltage                                          | $V_{R(RMS)}$    | 53       | V                  |
| Forward Continuous Current                                   | $I_{FM}$        | 300      | mA                 |
| Average Rectified Output Current                             | $I_O$           | 150      | mA                 |
| Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$ | $I_{FSM}$       | 2.0      | A                  |
| Power Dissipation                                            | $P_d$           | 225      | mW                 |
| Thermal Resistance Junction to Ambient                       | $R_{\theta JA}$ | 556      | $^\circ\text{C/W}$ |
| Junction Temperature                                         | $T_j$           | 150      | $^\circ\text{C}$   |
| Storage Temperature                                          | $T_{STG}$       | -55~+150 | $^\circ\text{C}$   |

## ELECTRICAL CHARACTERISTICS( $T_A = 25^\circ\text{C}$ unless otherwise noted)

| Characteristic            | Symbol      | Conditions                                                                                                 | Min | Typ | Max                            | Unit          |
|---------------------------|-------------|------------------------------------------------------------------------------------------------------------|-----|-----|--------------------------------|---------------|
| Reverse Breakdown Voltage | $V_{(BR)R}$ | ( $I_R = 100\mu\text{A}$ )                                                                                 | 75  |     |                                | V             |
| Reverse Leakage           | $I_R$       | ( $V_R = 75\text{V}$ )                                                                                     |     |     | 1                              | $\mu\text{A}$ |
| Forward Voltage           | $V_F$       | ( $I_F = 1.0\text{mA}$ )<br>( $I_F = 10\text{mA}$ )<br>( $I_F = 50\text{mA}$ )<br>( $I_F = 150\text{mA}$ ) |     |     | 0.715<br>0.855<br>1.00<br>1.25 | V             |
| Total Capacitance         | $C_T$       | ( $V_R = 0\text{V}$ , $f = 1.0\text{MHz}$ )                                                                |     |     | 2.0                            | pF            |
| Reverse Recovery Time     | $t_{rr}$    | $I_F=10\text{mA}$ , $I_R=10\text{mA}$ ,<br>$I_{rr}=0.1I_R$ , $R_L=100\Omega$                               |     |     | 6.0                            | ns            |

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## Typical Characteristics

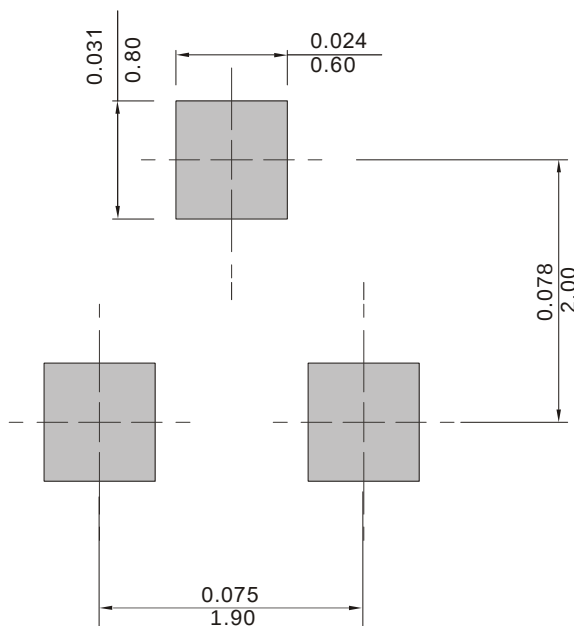


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## MOUNTING PAD LAYOUT

SOT-23

Unit:Inch(mm)



## ORDER INFORMATION

- Packing information

| Part Number | Case   | Reel Size | QUANTITY |
|-------------|--------|-----------|----------|
| BAS16       | SOT-23 | 7 Inch    | 3000     |