

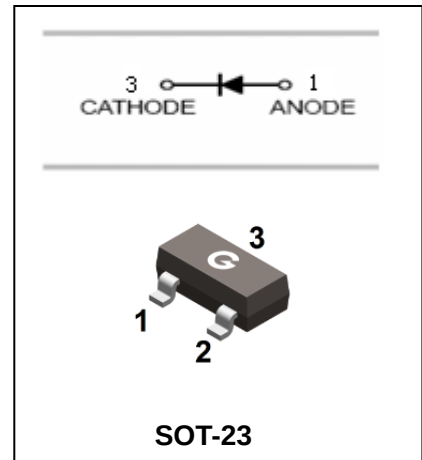
## Surface mount switching diode

## TBAS116

### FEATURES

- Low leakage current applications
- Medium speed switching times
- Surface mount package ideally suited for automatic insertion
- Halogen free
- Qualified to AEC-Q101 standards for high reliability

**HF**



### APPLICATIONS

- High speed switching application

### ORDERING INFORMATION

| Type No. | Marking | Package Code |
|----------|---------|--------------|
| TBAS116  | JV      | SOT-23       |

### MAXIMUM RATING @ Ta=25°C unless otherwise specified

| Characteristic                             | Symbol          | Limits      | Unit |
|--------------------------------------------|-----------------|-------------|------|
| Peak Repetitive Reverse Voltage            | $V_{RRM}$       | 85          | V    |
| Working Peak Reverse Voltage               | $V_{RWM}$       |             |      |
| DC Reverse Voltage                         | $V_R$           |             |      |
| RMS Reverse Voltage                        | $V_{R(RMS)}$    | 60          | V    |
| Forward Continuous Current                 | $I_{FM}$        | 215         | mA   |
| Repetitive Peak Forward Current            | $I_{FRM}$       | 500         | mA   |
| Non-Repetitive Peak Forward Surge Current  | $I_{FSM}$       | 4.0         | A    |
| @t=1.0μs                                   |                 | 1.0         |      |
| @t=1.0ms                                   |                 | 0.5         |      |
| @t=1.0s                                    |                 |             |      |
| Power Dissipation                          | $P_d$           | 250         | mW   |
| Thermal Resistance Junction to Ambient Air | $R_{\theta JA}$ | 500         | °C/W |
| Operating Junction Temperature Range       | $T_j$           | 150         | °C   |
| Storage Temperature Range                  | $T_{STG}$       | -65 to +150 | °C   |

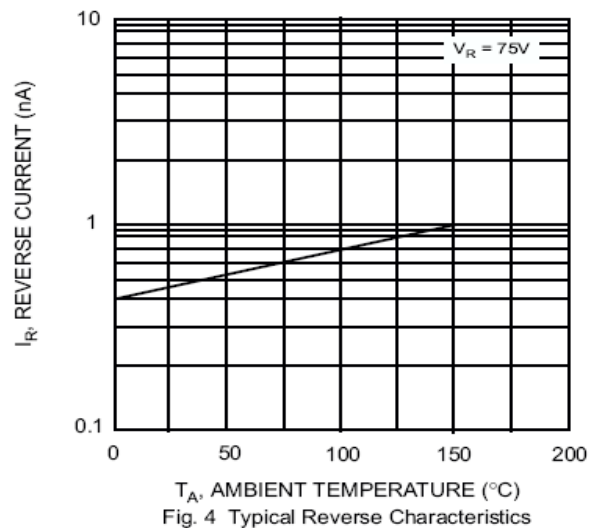
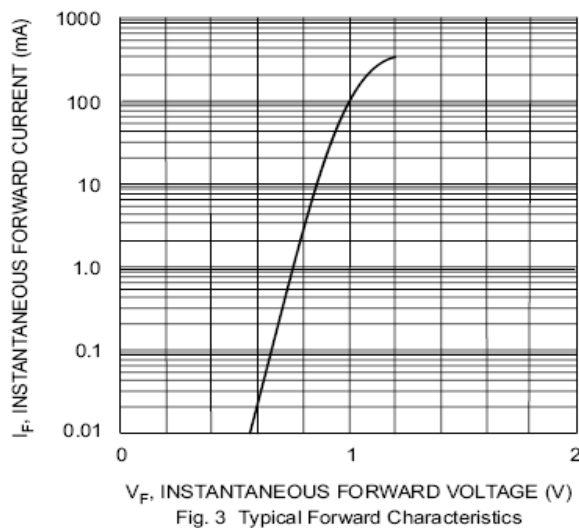
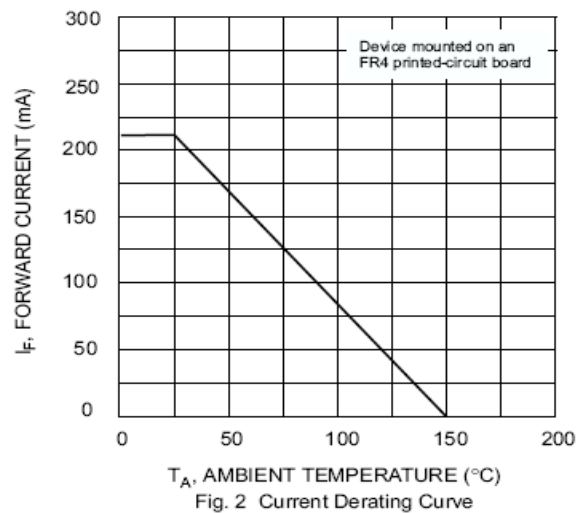
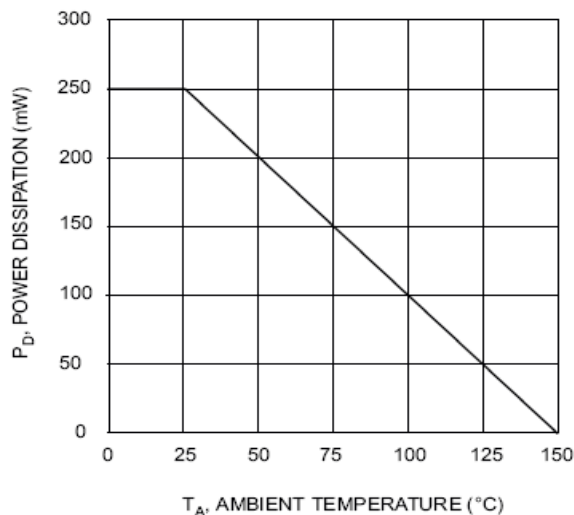
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### ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

| Characteristic            | Symbol      | Min | Typ | MAX                       | UNIT | Test Condition                                                                   |
|---------------------------|-------------|-----|-----|---------------------------|------|----------------------------------------------------------------------------------|
| Reverse Breakdown Voltage | $V_{(BR)R}$ | 85  | -   | -                         | V    | $I_R=100\mu\text{A}$                                                             |
| Forward Voltage           | $V_{FM}$    | -   | -   | 0.9<br>1.0<br>1.1<br>1.25 | V    | $I_F=1\text{mA}$<br>$I_F=10\text{mA}$<br>$I_F=50\text{mA}$<br>$I_F=150\text{mA}$ |
| Reverse Leakage Current   | $I_R$       | -   | -   | 5.0<br>80                 | nA   | $V_R=75\text{V}$<br>$V_R=75\text{V}, T_J=150^\circ\text{C}$                      |
| Junction Capacitance      | $C_j$       | -   | 2   | -                         | pF   | $V_R=0\text{V}, f=1.0\text{MHz}$                                                 |
| Reverse Recovery Time     | $t_{rr}$    | -   | -   | 3                         | us   | $I_F=I_R=10\text{mA}, I_{rr}=0.1*I_R$                                            |

### TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



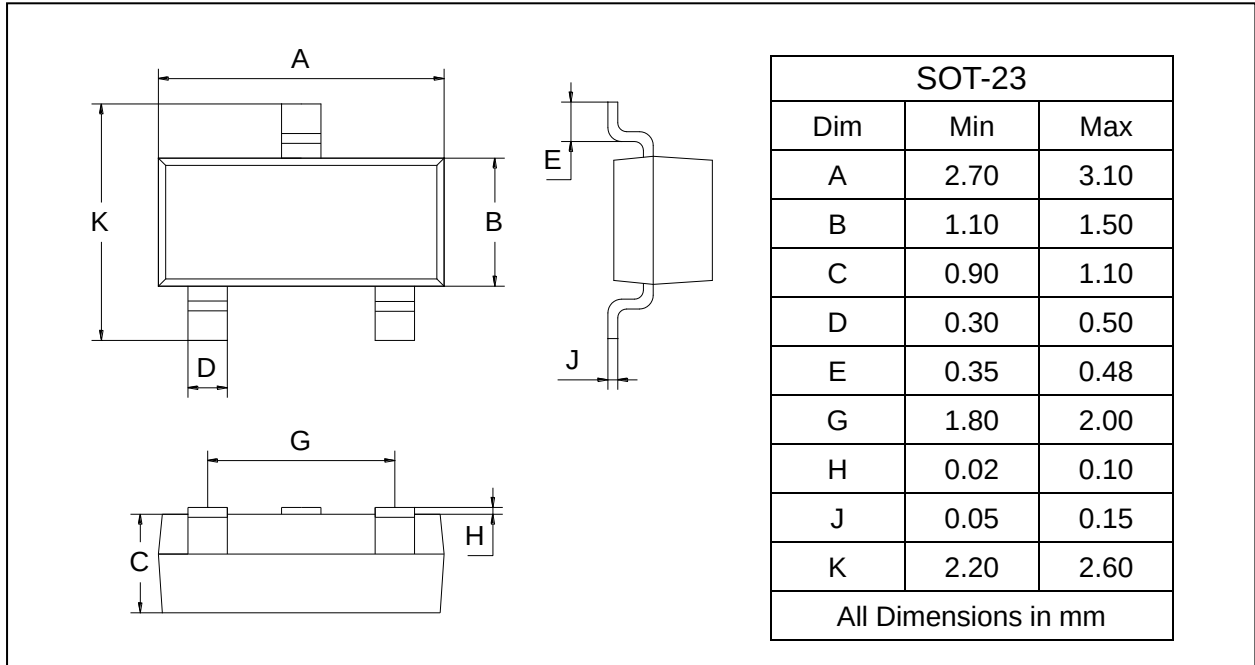
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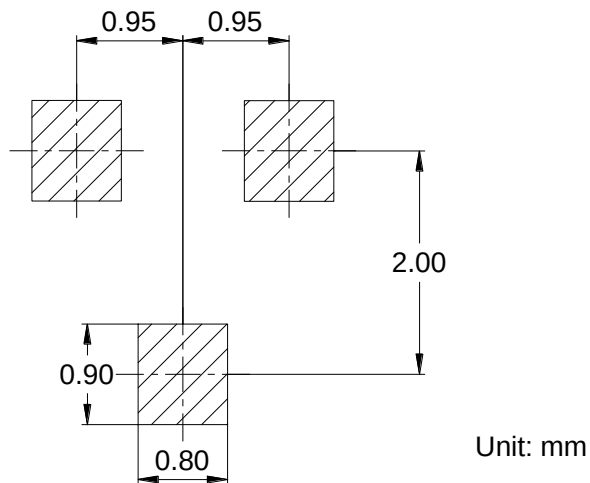
### PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



### SOLDERING FOOTPRINT



### PACKAGE INFORMATION

| Device  | Package | Shipping               |
|---------|---------|------------------------|
| TBAS116 | SOT-23  | 3000 pcs / Tape & Reel |