

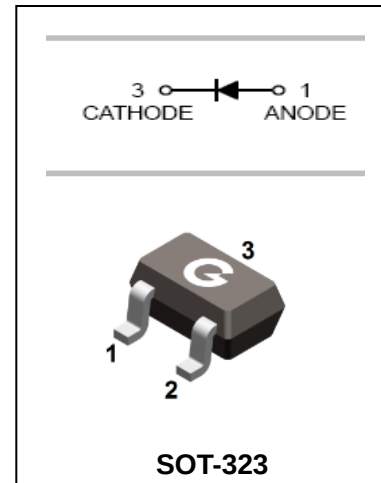
## Surface Mount Switching Diode

## TBAS16W

### FEATURES

- Fast switching speed
- High conductance
- For general purpose switching applications
- Surface mount package ideally suited for automatic insertion
- Halogen free
- Qualified to AEC-Q101 standards for high reliability

**HF**



### APPLICATIONS

- For general purpose switching applications

### ORDERING INFORMATION

| Type No. | Marking | Package Code |
|----------|---------|--------------|
| TBAS16W  | A2      | SOT-323      |

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

| Parameter                                                    | Symbol          | Limits      | Unit |
|--------------------------------------------------------------|-----------------|-------------|------|
| Non-Repetitive Peak Reverse Voltage                          | $V_{RM}$        | 100         | V    |
| Pek Repetitive 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    |
| Average Rectified Output Current                             | $I_O$           | 150         | mA   |
| Non-Repetitive Peak Forward Surge Current<br>@t=1μS<br>@t=1S | $I_{FSM}$       | 2.0<br>1.0  | A    |
| Power Dissipation                                            | $P_D$           | 200         | mW   |
| Thermal Resistance Junction to Ambient Air                   | $R_{\theta JA}$ | 625         | °C/W |
| Operating and Storage temperature range                      | $T_J, T_{STG}$  | -65 to +150 | °C   |

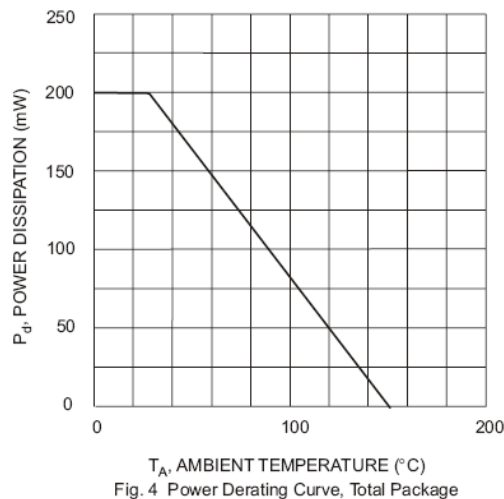
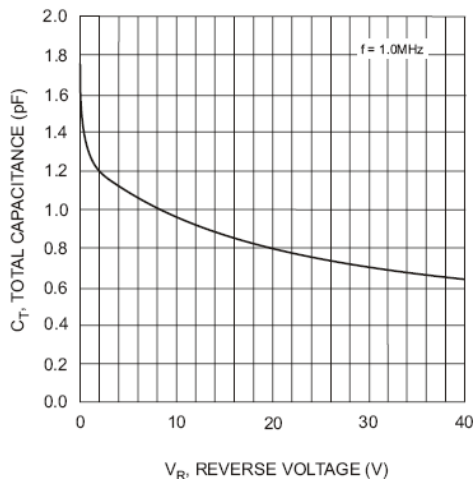
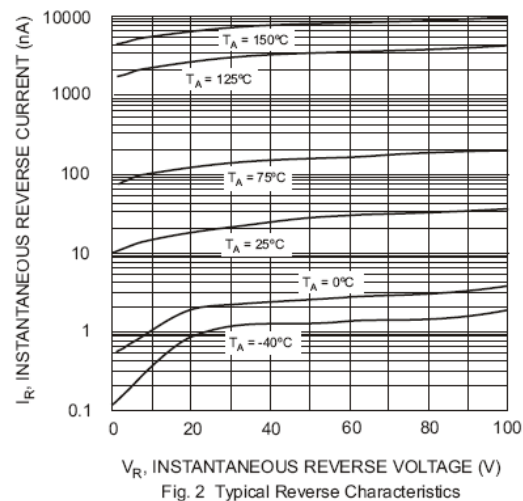
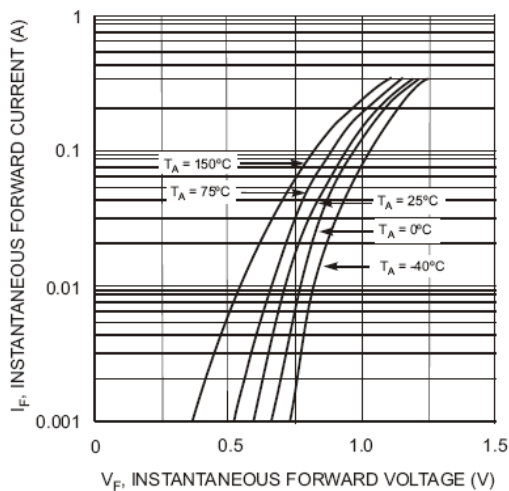
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### ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

| Parameter                       | Symbol      | Test conditions                                                                  | MIN | MAX                        | UNIT                |
|---------------------------------|-------------|----------------------------------------------------------------------------------|-----|----------------------------|---------------------|
| Reverse breakdown voltage       | $V_{(BR)R}$ | $I_R = 1\mu\text{A}$                                                             | 75  |                            | V                   |
| Reverse voltage leakage current | $I_R$       | $V_R=20\text{V}$<br>$V_R=75\text{V}$                                             |     | 25<br>1                    | nA<br>$\mu\text{A}$ |
| Forward voltage                 | $V_F$       | $I_F=1\text{mA}$<br>$I_F=10\text{mA}$<br>$I_F=50\text{mA}$<br>$I_F=150\text{mA}$ |     | 715<br>855<br>1000<br>1250 | mV                  |
| Diode capacitance               | $C_D$       | $V_R=0\text{V}$ $f=1\text{MHz}$                                                  |     | 2                          | pF                  |
| Reverse recovery time           | $t_{rr}$    | $I_F=I_R=10\text{mA}$ $R_L=100\Omega$                                            |     | 4                          | nS                  |

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



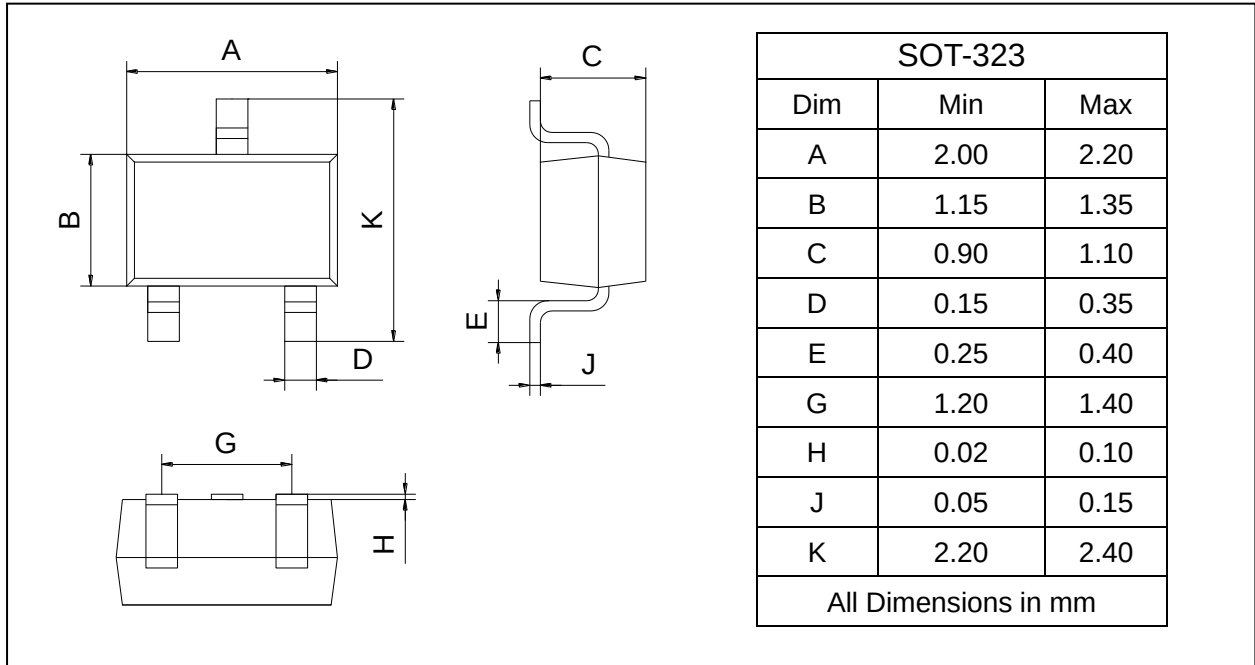
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## TBAS16W

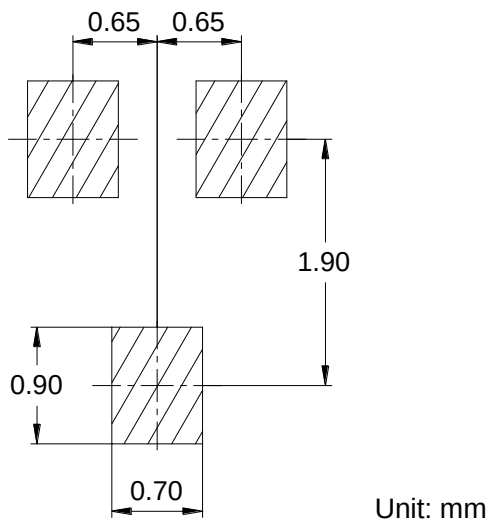
### PACKAGE OUTLINE

Plastic surface mounted package

SOT-323



### SOLDERING FOOTPRINT



### PACKAGE INFORMATION

| Device  | Package | Shipping               |
|---------|---------|------------------------|
| TBAS16W | SOT-323 | 3000 pcs / Tape & Reel |