

● FEATURES

- Extremely low V_F .
- Low stored charge, majority carrier conduction.
- Low power loss/high efficient

● APPLICATIONS

- For Use In Low Voltage, High Frequency Inverters.
- Free Wheeling, And Polarity Protection Applications.

● ORDERING INFORMATION



| Type No. | Marking | Package Code |
|----------|---------|--------------|
| B5817WS | SJ | SOD-323 |
| B5818WS | SK | SOD-323 |
| B5819WS | SL | SOD-323 |

● MAXIMUM RATING @ $T_a=25^{\circ}\text{C}$ unless otherwise specified

| Parameter | symbol | B5817WS | B5818WS | B5819WS | Unit |
|--|-----------------|----------|---------|---------|-----------------------------|
| Non-Repetitive Peak reverse voltage | V_{RM} | 20 | 30 | 40 | V |
| Peak repetitive Peak reverse voltage | V_{RRM} | | | | |
| Working Peak Reverse voltage | V_{RWM} | 20 | 30 | 40 | V |
| DC Reverse Voltage | V_R | | | | |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 14 | 21 | 28 | V |
| Average Rectified output Current | I_o | 1 | | | A |
| Peak forward surge current@=8.3ms | I_{FSM} | 20 | | | A |
| Power Dissipation | P_d | 250 | | | mW |
| Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | 500 | | | $^{\circ}\text{C}/\text{W}$ |
| Storage temperature | T_{STG} | -65~+150 | | | $^{\circ}\text{C}$ |



● ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

| Parameter | Symbol | Test Condition | MIN | MAX | UNIT |
|---------------------------------|------------|------------------|----------|-------|------|
| Reverse breakdown voltage | $V_{(BR)}$ | $I_R=1mA$ | B5817WS | 20 | V |
| | | | B5818WS | 30 | |
| | | | B5819WS | 40 | |
| Reverse voltage leakage current | I_R | $V_R=20V$ | B5817WS | 1 | mA |
| | | $V_R=30V$ | B5818WS | | |
| | | $V_R=40V$ | B5819WS | | |
| Forward voltage | V_F | B5817WS | $I_F=1A$ | 0.45 | V |
| | | | $I_F=3A$ | 0.75 | |
| | | B5818WS | $I_F=1A$ | 0.55 | |
| | | | $I_F=3A$ | 0.875 | |
| | | B5819WS | $I_F=1A$ | 0.6 | |
| | | | $I_F=3A$ | 0.9 | |
| Diode capacitance | C_D | $V_R=4V, f=1MHz$ | | 120 | pF |

● TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

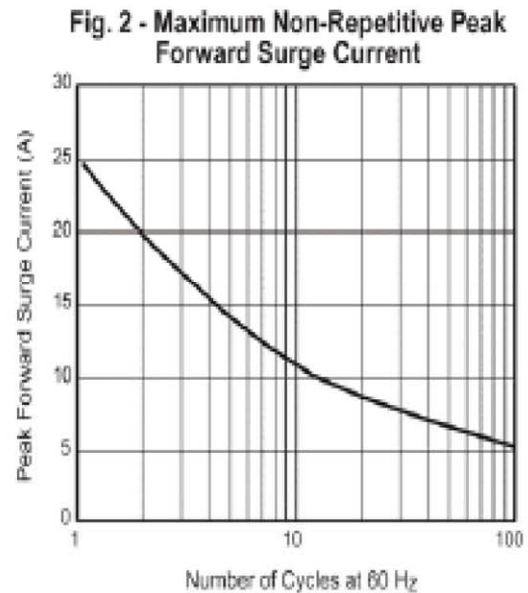
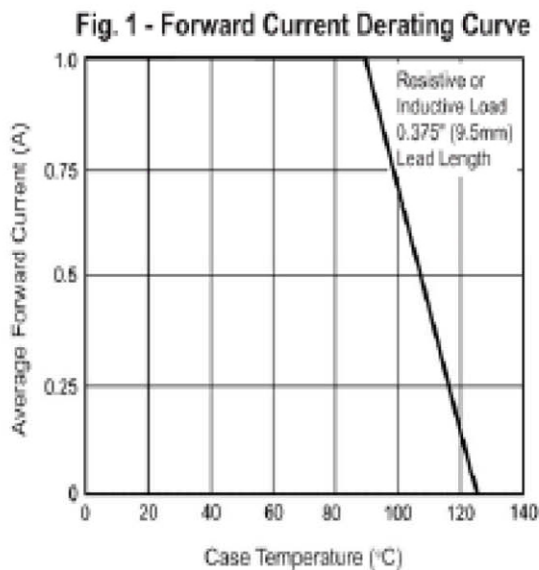


Fig. 3 - Typical Instantaneous Forward Characteristics

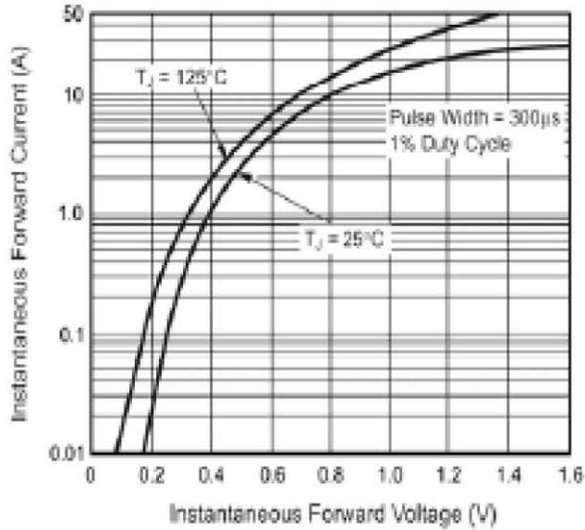


Fig. 4 - Typical Reverse Characteristics

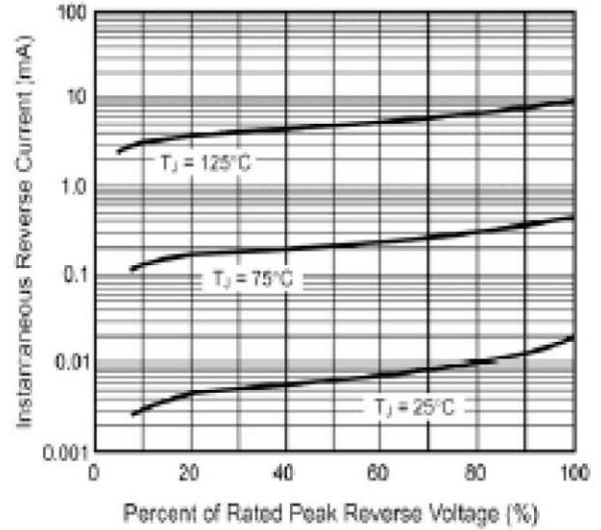


Fig. 5 - Typical Junction Capacitance

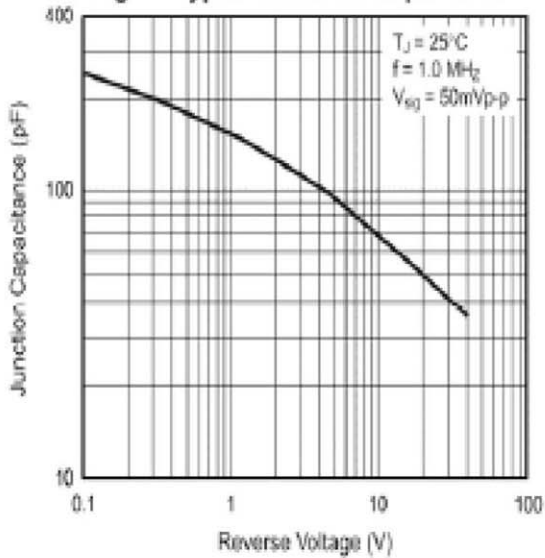
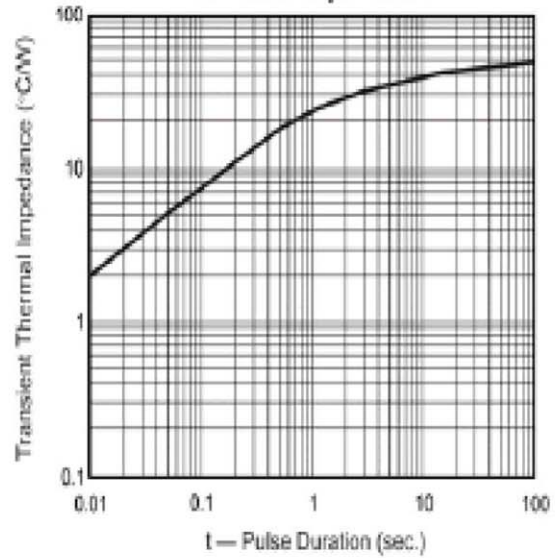
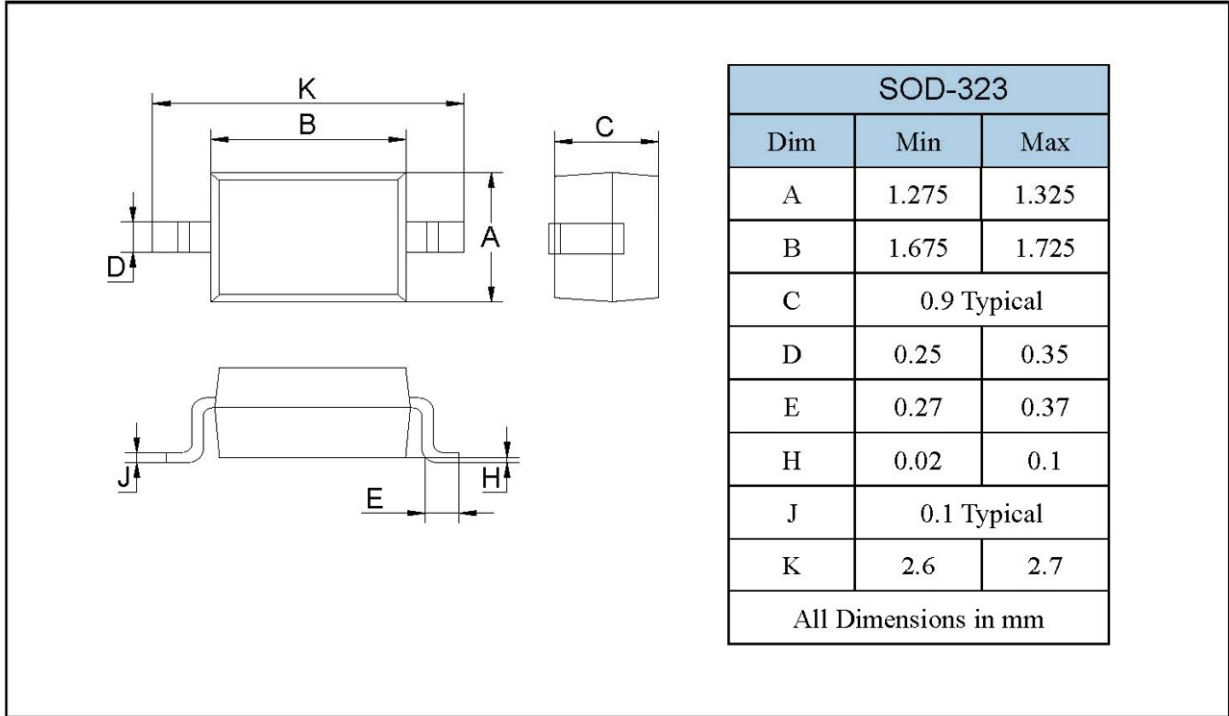


Fig. 6 - Typical Transient Thermal Impedance

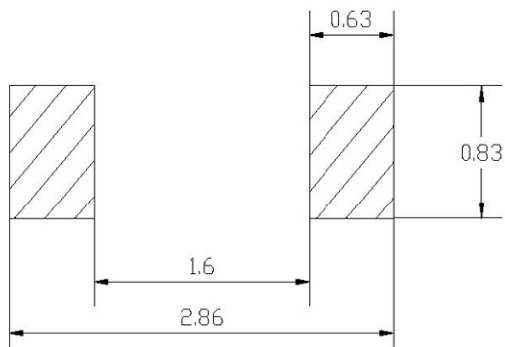


PACKAGE OUTLINE

Plastic surface mounted package



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

| Device | Package | Shipping |
|-----------------|---------|----------------|
| B5817WS-B5819WS | SOD-323 | 3000/Tape&Reel |



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