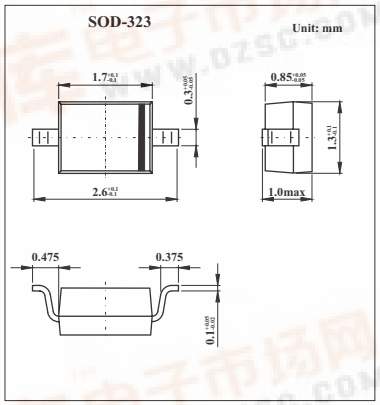
# Schottky Barrier Diodes
# 1N5817WS-1N5819WS




## Features

- For use in low voltage, high frequency inverters
- Free wheeling, and polarity protection applications.

## Absolute Maximum Ratings Ta = 25℃

| Parameter | Symbol | 1N5817WS | 1N5818WS | 1N5819WS | Unit |
|---|---|---|---|---|---|
| Non-Repetitive Peak reverse voltage | $V_{RM}$ | 20 | 30 | 40 | V |
| Peak repetitive Peak reverse voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 20 | 30 | 40 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 14 | 21 | 28 | V |
| Average Rectified Output Current | $I_O$ | 1 | | | A |
| Peak forward surge current @=8.3ms | $I_{FSM}$ | 25 | | | A |
| Repetitive Peak Forward Current | $I_{FRM}$ | 625 | | | mA |
| Power Dissipation | $P_d$ | 250 | | | mW |
| Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | 500 | | | K/W |
| Storage temperature | $T_{STG}$ | -65 to 150 | | | ℃ |

## Electrical Characteristics Ta = 25℃

| Parameter | | Symbol | Testconditons | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|---|
| Reverse breakdown voltage | 1N5817WS<br>1N5818WS<br>1N5819WS | $V_{(BR)}$ | $I_R$= 1mA | 20<br>30<br>40 | | | V |
| Reverse voltage leakage current | 1N5817WS<br>1N5818WS<br>1N5819WS | $I_R$ | $V_R$=20V<br>$V_R$=30V<br>$V_R$=40V | | | 1 | mA |
| Forward voltage | 1N5817WS | $V_F$ | $I_F$=1A<br>$I_F$=3A | | | 0.45<br>0.75 | V |
| | 1N5818WS | | $I_F$=1A<br>$I_F$=3A | | | 0.55<br>0.875 | V |
| | 1N5819WS | | $I_F$=1A<br>$I_F$=3A | | | 0.6<br>0.9 | V |
| Diode capacitance | | $C_D$ | $V_R$=4V, f=1MHz | | | 120 | pF |

## Marking

| NO. | 1N5817WS | 1N5818WS | 1N5819WS |
|---|---|---|---|
| Marking | SJ | SK | SL |

# 1N5817WS-1N5819WS

■ Typical Characteristics

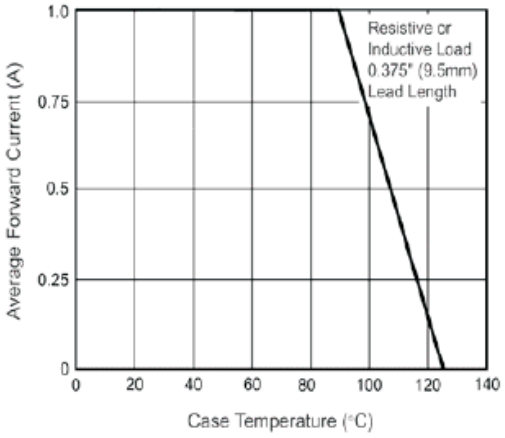



Fig.1 Forward Current Derating Curve

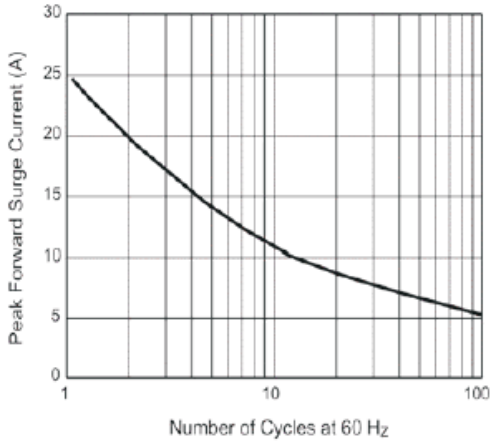



Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

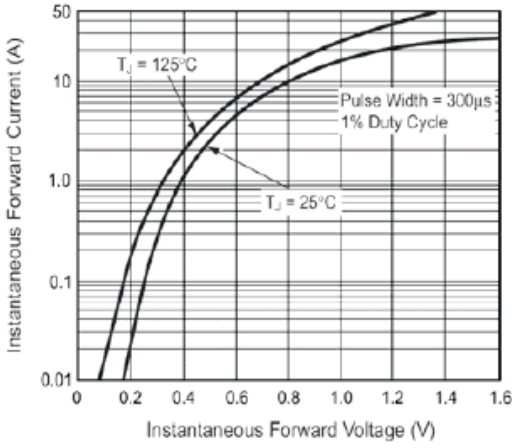



Fig.3 Typical Instantaneous Forward Characteristics

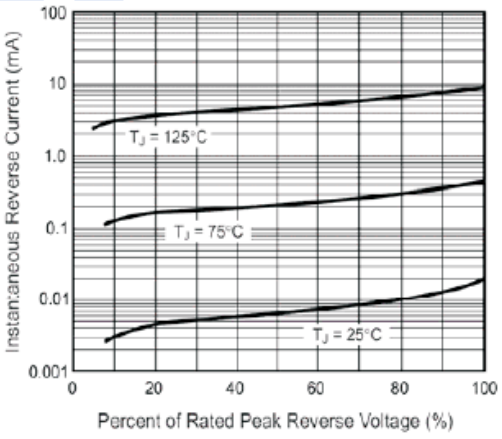



Fig.4 Typical Reverse Characteristics

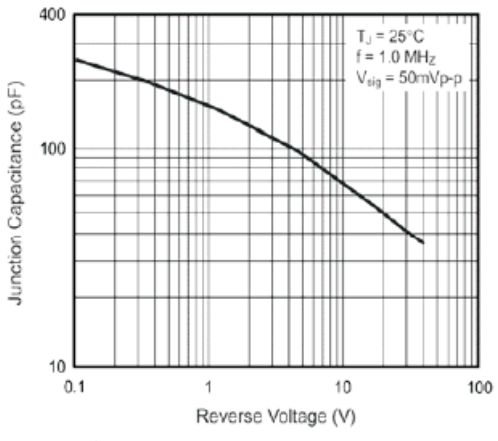



Fig.5 Typical Junction Capacitance

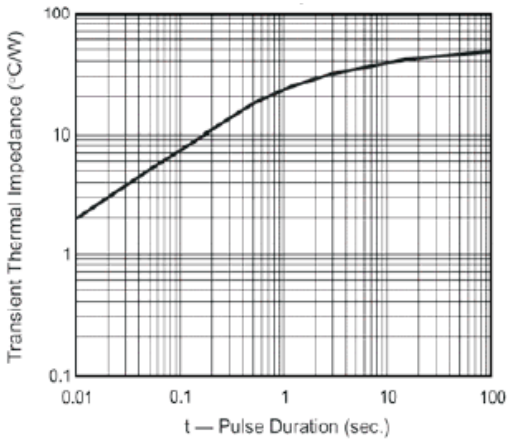



Fig.6 Typical Transient Thermal Impedance