

## FEATURES

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

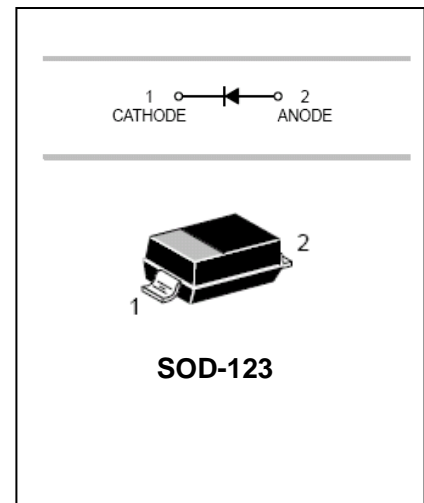


Lead-free

## APPLICATIONS

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

## ORDERING INFORMATION



| Type No. | Marking | Package Code |
|----------|---------|--------------|
| IN5817W  | SJ      | SOD-123      |
| IN5818W  | SK      | SOD-123      |
| IN5819W  | SL      | SOD-123      |

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

| Parameter                              | symbol          | IN5817W  | IN5818W | IN5819W | Unit                      |
|----------------------------------------|-----------------|----------|---------|---------|---------------------------|
| Non-Repetitive Peak reverse voltage    | $V_{RM}$        | 20       | 30      | 40      | V                         |
| Peak repetitive Peak reverse voltage   | $V_{RRM}$       | 20       | 30      | 40      | V                         |
| Working Peak Reverse voltage           | $V_{RWM}$       |          |         |         |                           |
| 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      | $I_{FSM}$       | 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      |         |         | $^\circ\text{C}/\text{W}$ |
| Storage temperature                    | $T_{STG}$       | -65~+150 |         |         | $^\circ\text{C}$          |

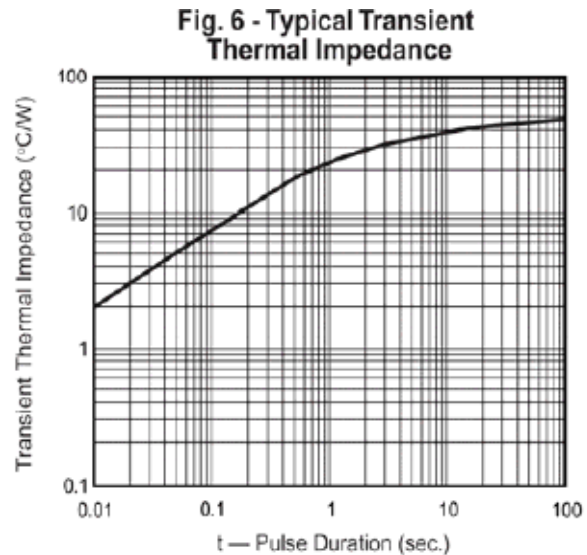
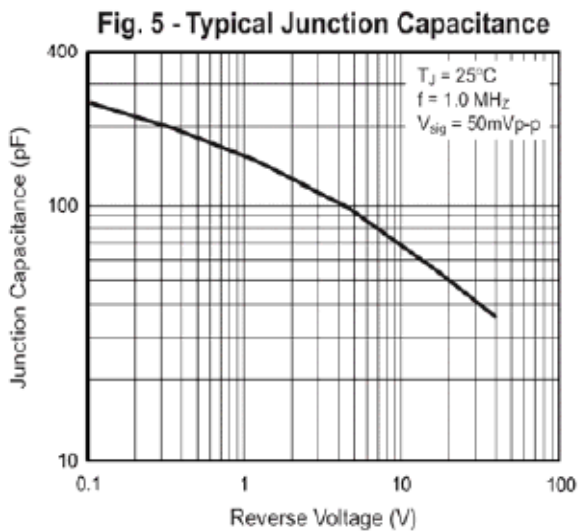
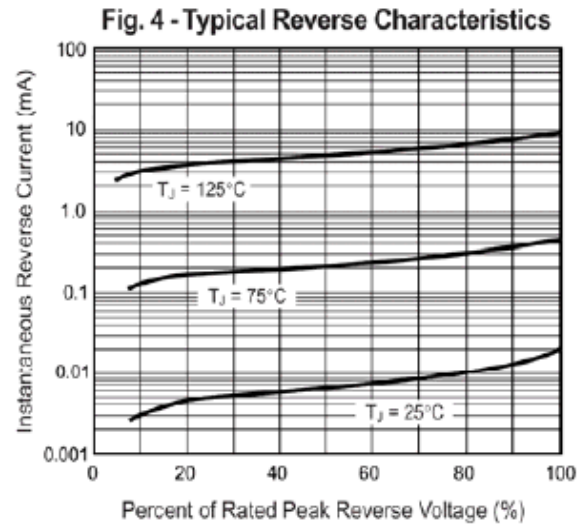
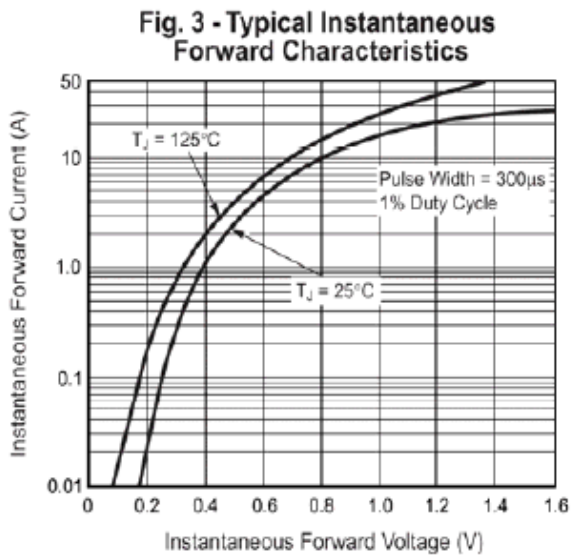
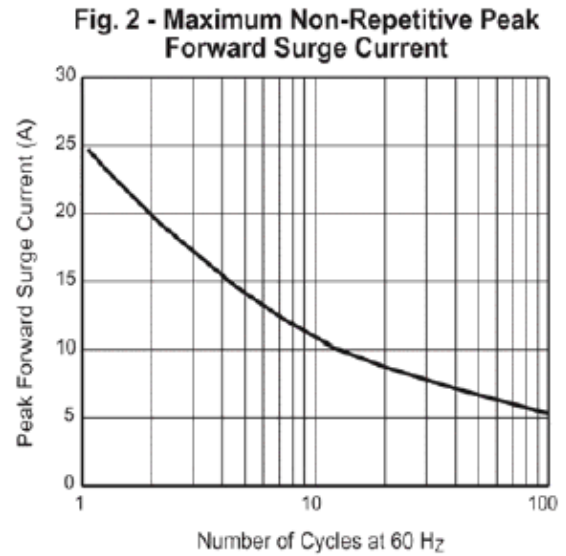
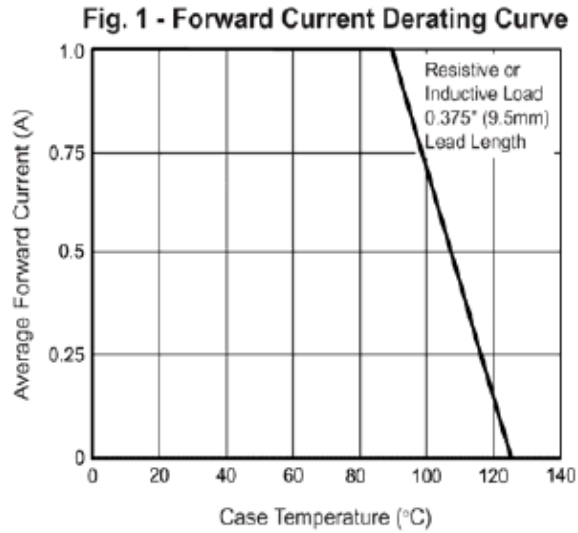
## ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

| Parameter                       | Symbol     | Test Condition   | MIN      | MAX   | UNIT |
|---------------------------------|------------|------------------|----------|-------|------|
| Reverse breakdown voltage       | $V_{(BR)}$ | $I_R=1mA$        |          |       | V    |
|                                 |            | IN5817W          | 20       |       |      |
|                                 |            | IN5818W          | 30       |       |      |
| Reverse voltage leakage current | $I_R$      | $V_R=20V$        | IN5817W  |       | mA   |
|                                 |            | $V_R=30V$        | IN5818W  | 1     |      |
|                                 |            | $V_R=40V$        | IN5819W  |       |      |
| Forward voltage                 | $V_F$      | IN5817W          | $I_F=1A$ | 0.45  | V    |
|                                 |            |                  | $I_F=3A$ | 0.75  |      |
|                                 |            | IN5818W          | $I_F=1A$ | 0.55  |      |
|                                 |            |                  | $I_F=3A$ | 0.875 |      |
|                                 |            | IN5819W          | $I_F=1A$ | 0.6   |      |
|                                 |            |                  | $I_F=3A$ | 0.9   |      |
| Diode capacitance               | $C_D$      | $V_R=4V, f=1MHz$ |          | 120   | pF   |

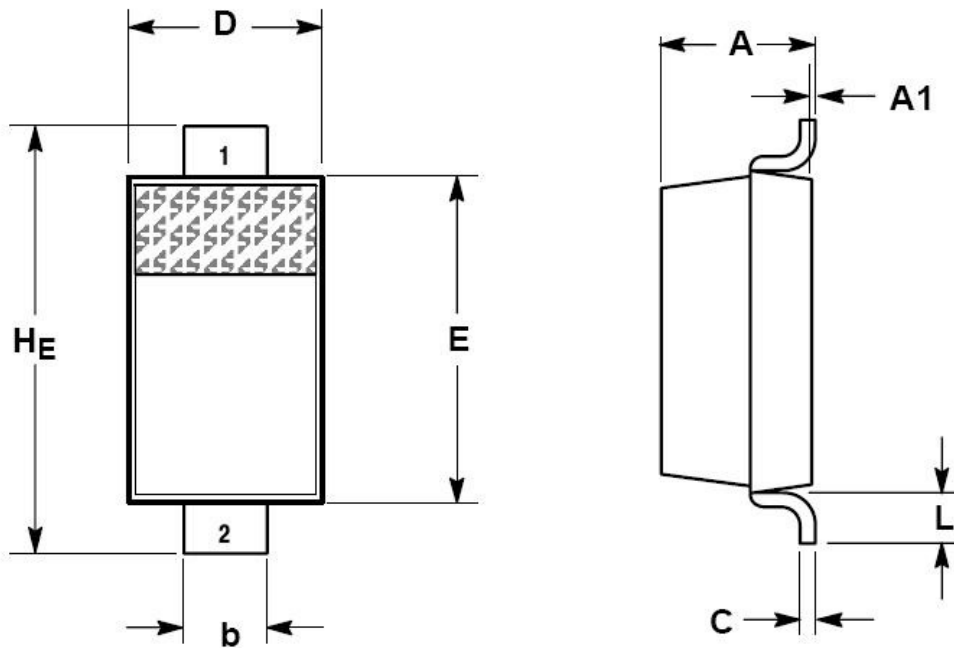
## PACKAGE INFORMATION

| Device          | Package | Shipping       |
|-----------------|---------|----------------|
| IN5817W-IN5819W | SOD-123 | 3000/Tape&Reel |

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



## SOD-123 PACKAGE OUTLINE & DIMENSIONS



| DIM | MILLIMETERS |      |      | INCHES |       |       |
|-----|-------------|------|------|--------|-------|-------|
|     | MIN         | NOM  | MAX  | MIN    | NOM   | MAX   |
| A   | 0.94        | 1.17 | 1.35 | 0.037  | 0.046 | 0.053 |
| A1  | 0.00        | 0.05 | 0.10 | 0.000  | 0.002 | 0.004 |
| b   | 0.51        | 0.61 | 0.71 | 0.020  | 0.024 | 0.028 |
| c   | ---         | ---  | 0.15 | ---    | ---   | 0.006 |
| D   | 1.40        | 1.60 | 1.80 | 0.055  | 0.063 | 0.071 |
| E   | 2.54        | 2.69 | 2.84 | 0.100  | 0.106 | 0.112 |
| HE  | 3.56        | 3.68 | 3.86 | 0.140  | 0.145 | 0.152 |
| L   | 0.25        | ---  | ---  | 0.010  | ---   | ---   |

### \* SOLDERING FOOTPRINT

