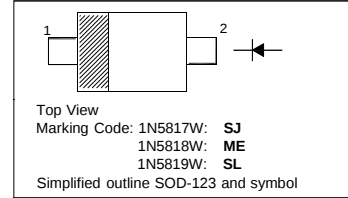


# 1N5817W-1N5819W

## 1A Surface Mount Schottky Barrier Diode

### PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | Cathode     |
| 2   | Anode       |



### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

| Parameter                                                                   | Symbol      | Value          | Unit             |
|-----------------------------------------------------------------------------|-------------|----------------|------------------|
| Reverse Voltage<br>1N5817W<br>1N5818W<br>1N5819W                            | $V_R$       | 20<br>30<br>40 | V                |
| Average Forward Rectified Current                                           | $I_{F(AV)}$ | 1              | A                |
| Non-Repetitive Peak Forward Surge Current<br>(8.3 ms Single Half Sine-Wave) | $I_{FSM}$   | 9              | A                |
| Power Dissipation                                                           | $P_{tot}$   | 450            | mW               |
| Operating Temperature Range                                                 | $T_j$       | - 55 to + 125  | $^\circ\text{C}$ |
| Storage Temperature Range                                                   | $T_{stg}$   | - 55 to + 125  | $^\circ\text{C}$ |

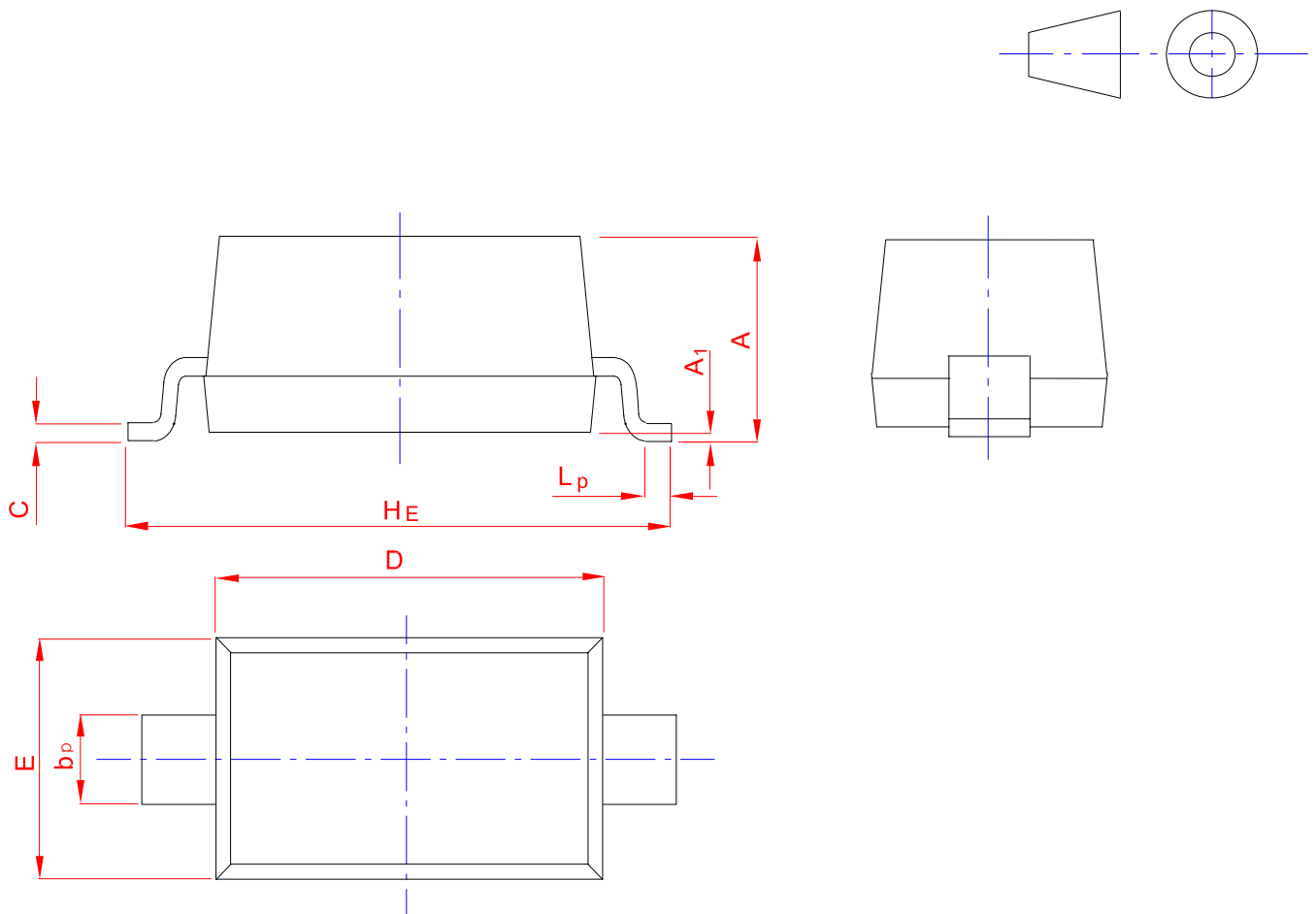
### Characteristics at $T_a = 25^\circ\text{C}$

| Parameter                                                                                                                                                                                              | Symbol      | Min.                            | Max.                                                | Unit |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------------------------|-----------------------------------------------------|------|
| Reverse Breakdown Voltage<br>at $I_R = 1\text{ mA}$<br>1N5817W<br>1N5818W<br>1N5819W                                                                                                                   | $V_{(BR)R}$ | 20<br>30<br>40                  | -<br>-<br>-                                         | V    |
| Reverse Current<br>at $V_R = 20\text{ V}$<br>at $V_R = 30\text{ V}$<br>at $V_R = 40\text{ V}$<br>at $V_R = 4\text{ V}$<br>at $V_R = 6\text{ V}$<br>1N5817W<br>1N5818W<br>1N5819W<br>1N5819W<br>1N5819W | $I_R$       | -<br>-<br>-<br>-<br>-           | 1<br>1<br>1<br>0.05<br>0.075                        | mA   |
| Forward Voltage<br>at $I_F = 0.1\text{ A}$<br>at $I_F = 1\text{ A}$<br>at $I_F = 3\text{ A}$<br>1N5819W<br>1N5817W<br>1N5818W<br>1N5819W<br>1N5817W<br>1N5818W<br>1N5819W                              | $V_F$       | -<br>-<br>-<br>-<br>-<br>-<br>- | 0.45<br>0.45<br>0.55<br>0.6<br>0.75<br>0.875<br>0.9 | V    |
| Total Capacitance<br>at $V_R = 4\text{ V}$ , $f = 1\text{ MHz}$                                                                                                                                        | $C_{tot}$   | -                               | 120                                                 | pF   |

## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



| UNIT | A            | b <sub>p</sub> | C              | D            | E            | H <sub>E</sub> | A <sub>1</sub> | L <sub>p</sub> |
|------|--------------|----------------|----------------|--------------|--------------|----------------|----------------|----------------|
| mm   | 1.20<br>0.90 | 0.60<br>0.50   | 0.135<br>0.100 | 2.75<br>2.55 | 1.65<br>1.55 | 3.85<br>3.55   | 0.10<br>0.01   | 0.50<br>0.20   |