

# 1N5817W-1N5819W

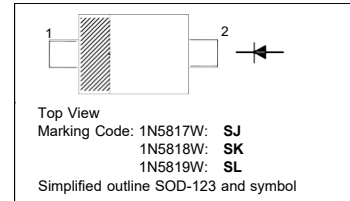
## 1A Surface Mount Schottky Barrier Diode

### Features

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

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

Parameter	Symbol	Value	Unit
Reverse Voltage	$V_R$	20 30 40	V
Average Forward Rectified Current	$I_{F(AV)}$	1	A
Non-Repetitive Peak Forward Surge Current (8.3 ms Single Half Sine-Wave)	$I_{FSM}$	25	A
Power Dissipation	$P_{tot}$	500	mW
Operating Temperature Range	$T_j$	125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 125	$^\circ\text{C}$

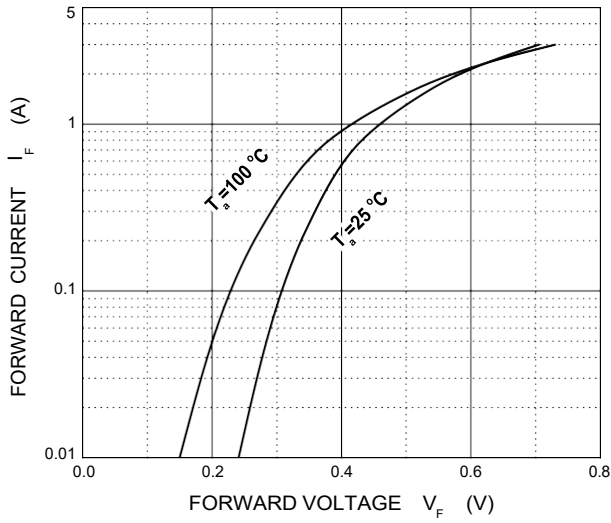
### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

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

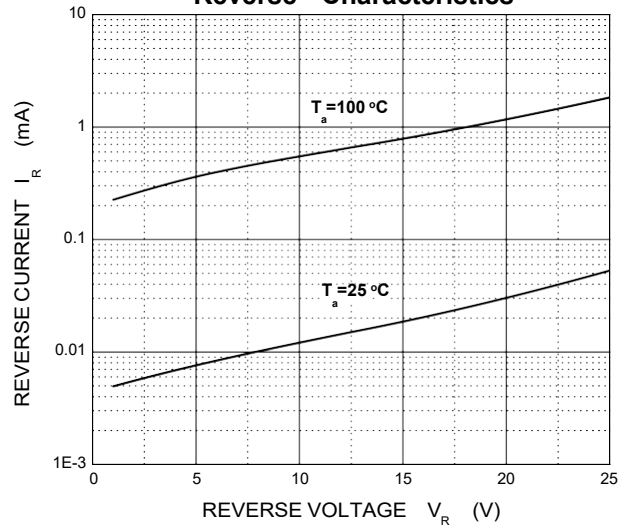
Typical Characteristics

1N5817W

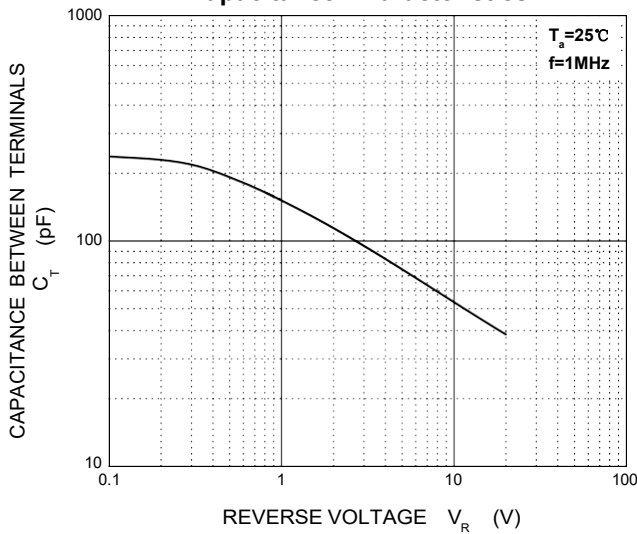
Forward Characteristics



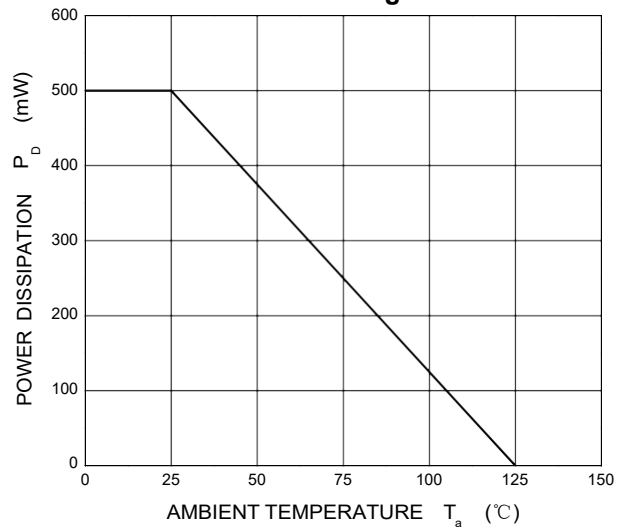
Reverse Characteristics



Capacitance Characteristics

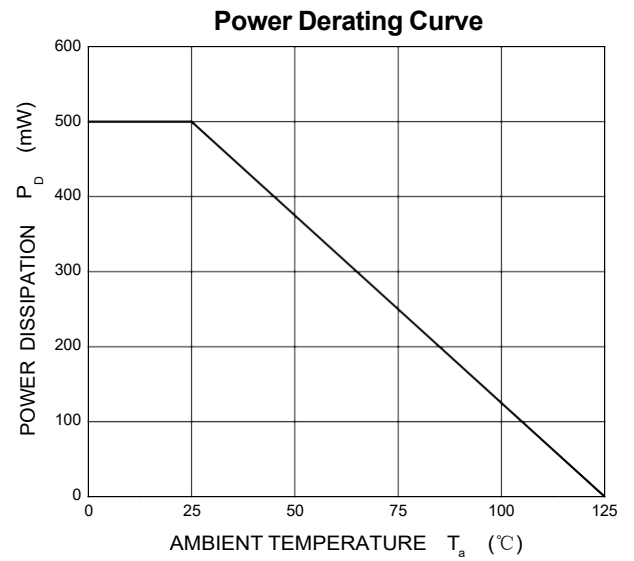
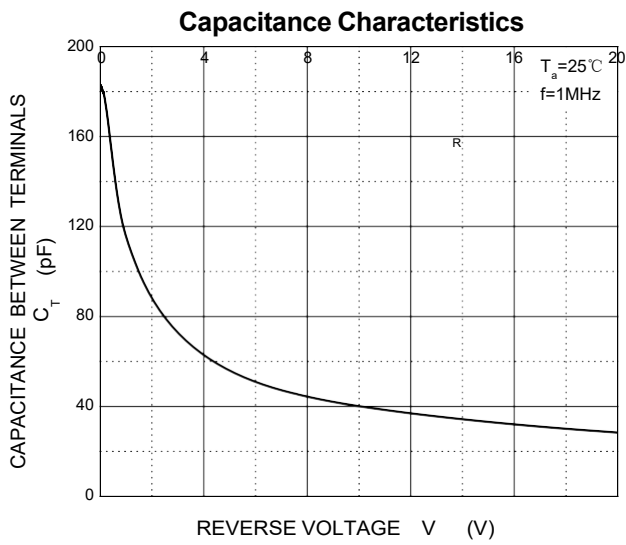
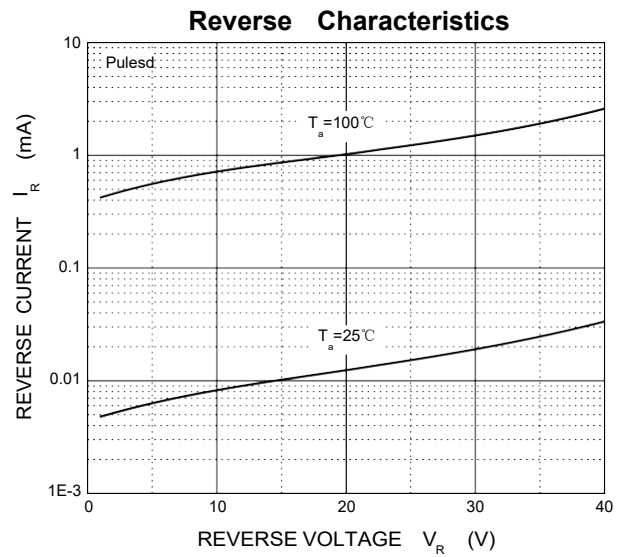
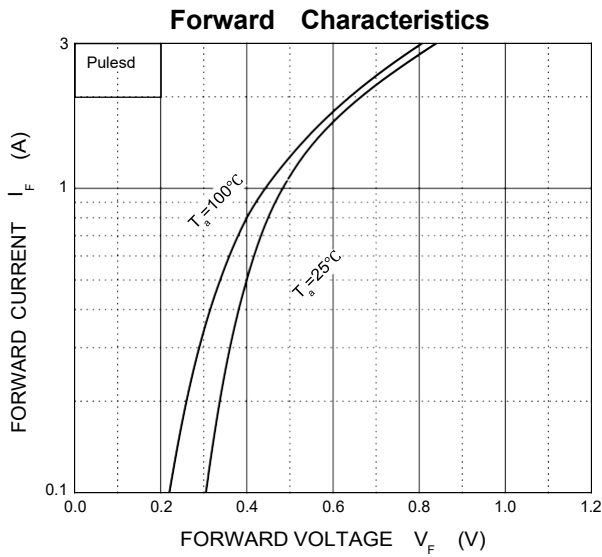


Power Derating Curve



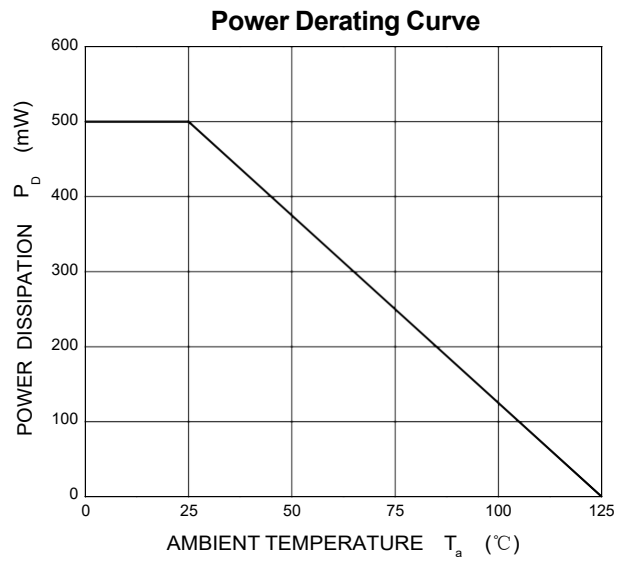
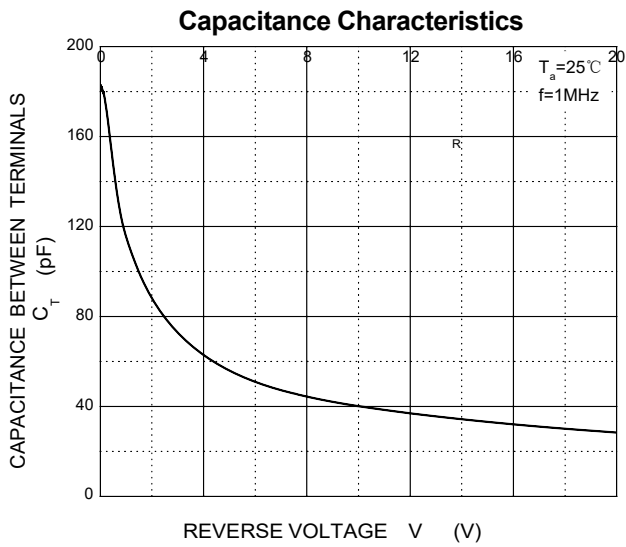
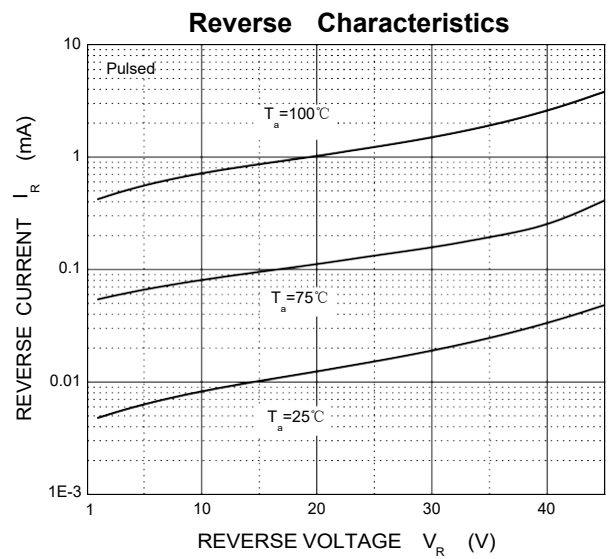
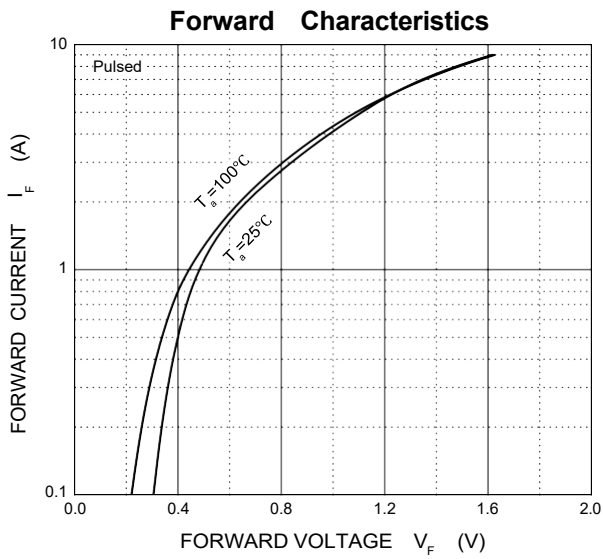
1N5818W

Typical Characteristics



1N5819W

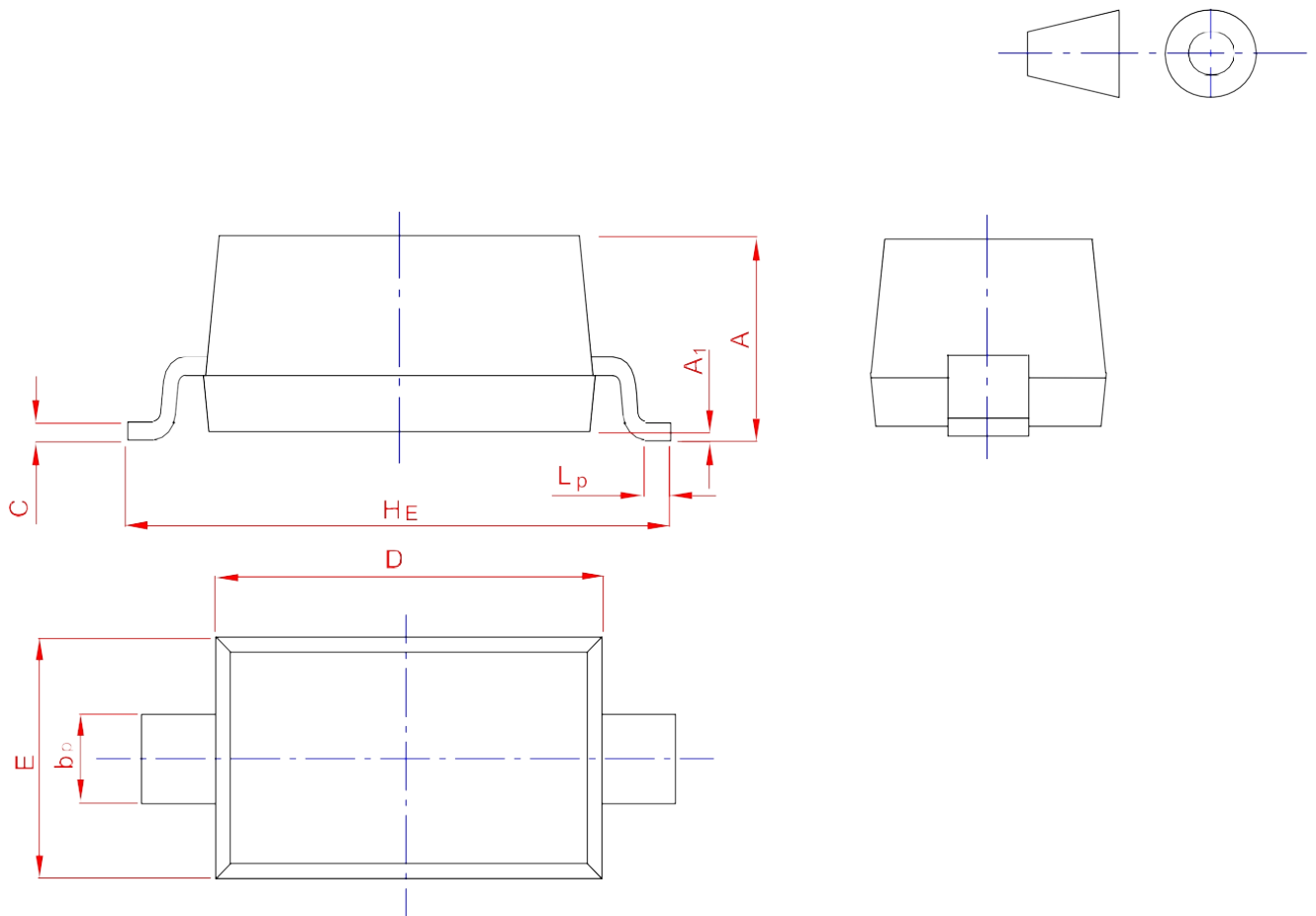
Typical Characteristics



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



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