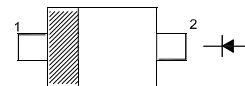


Features

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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Marking Code: B5817W: **SJ**
B5818W: **SK**
B5819W: **SL**
Simplified outline SOD-123 and symbol

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

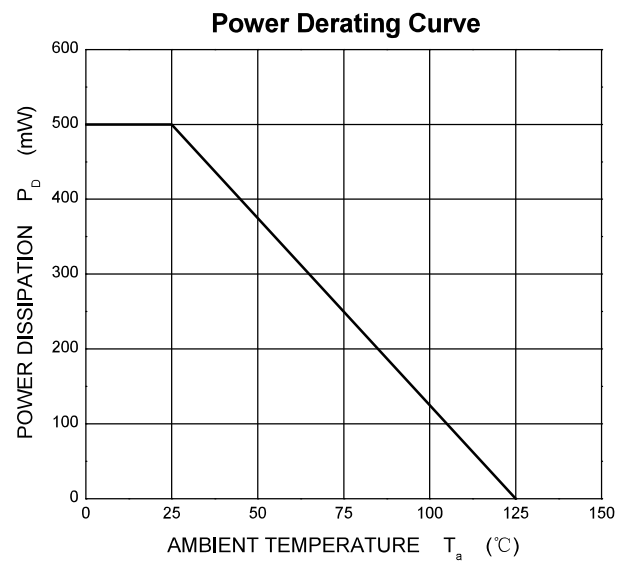
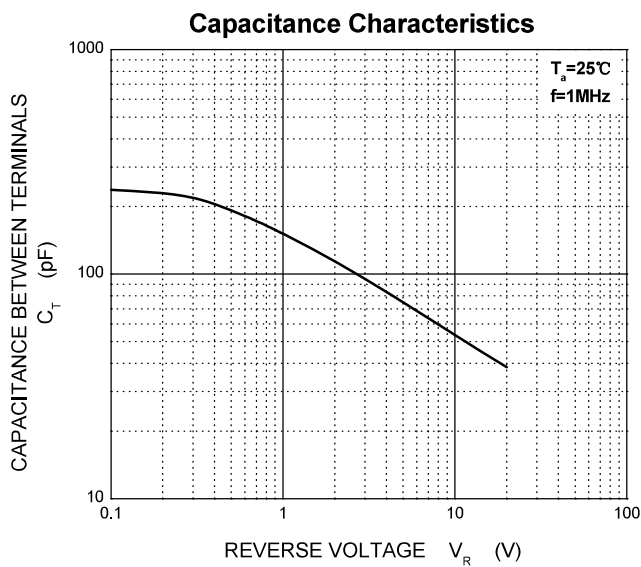
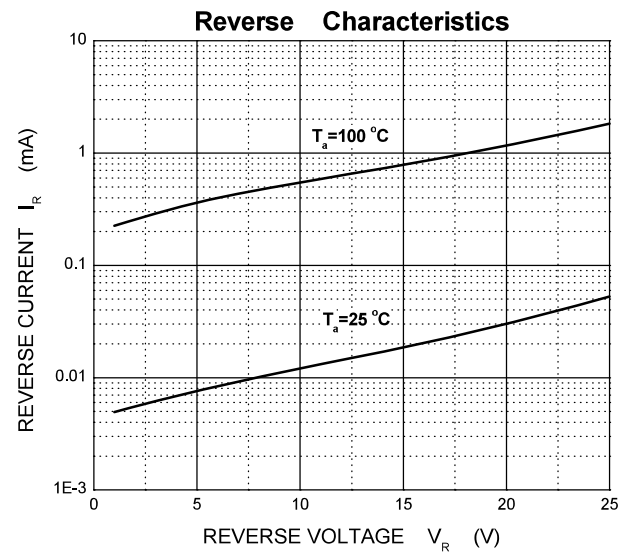
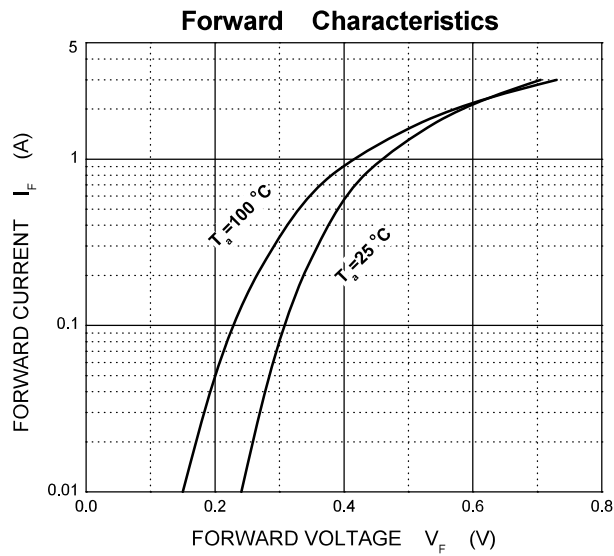
Parameter	Symbol	Value	Unit
Reverse Voltage B5817W B5818W B5819W	V_R	20 30 40	V
Average Forward Rectified Current	$I_{F(AV)}$	1	A
Non-Repetitive Peak Forward Surge Current (8.3 ms Single Half Sine-Wave)	I_{FSM}	25	A
Power Dissipation	P_{tot}	500	mW
Operating Temperature Range	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 125	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 1\text{ mA}$ B5817W B5818W B5819W	$V_{(BR)R}$	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 $V_R = 6\text{ V}$ B5817W B5818W B5819W B5819W B5819W	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 $I_F = 3\text{ A}$ B5819W B5817W B5818W B5819W B5817W B5818W B5819W	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

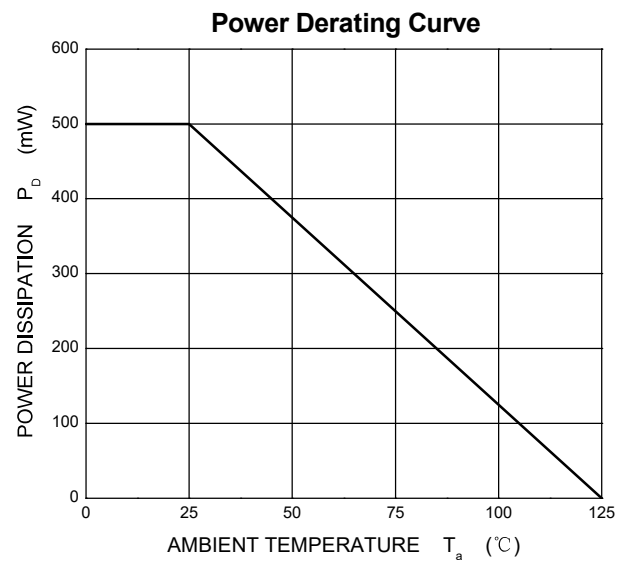
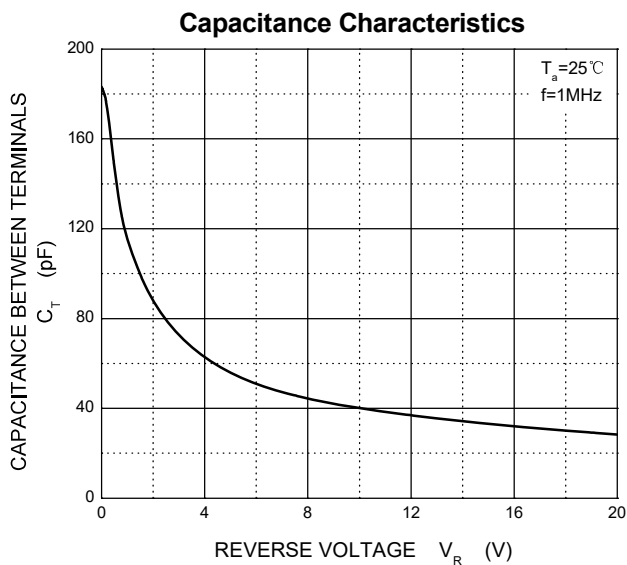
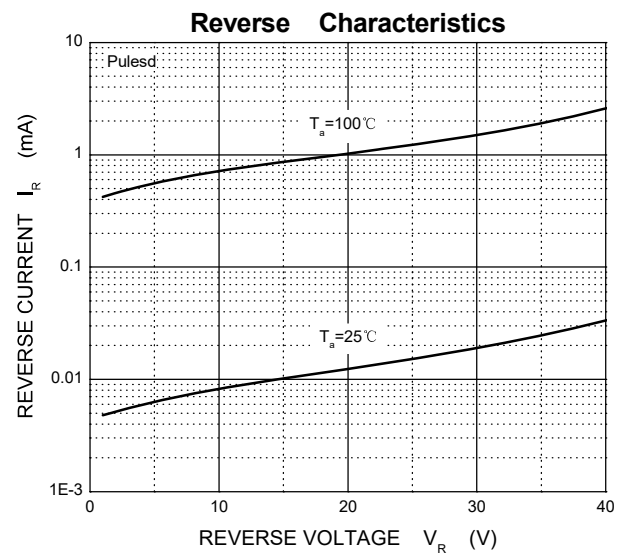
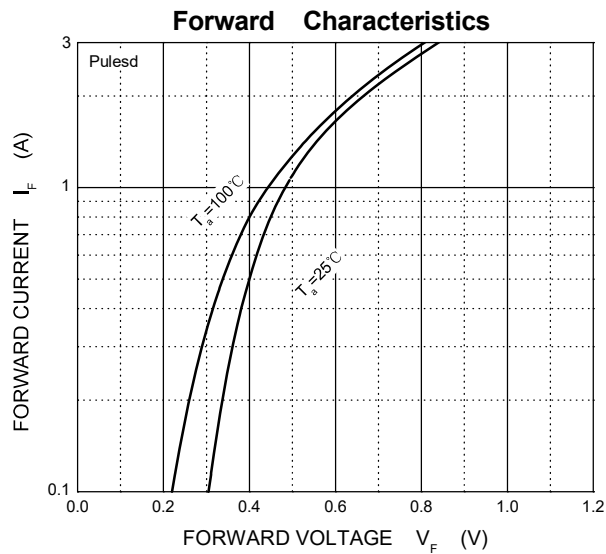
Typical Characteristics

B5817W



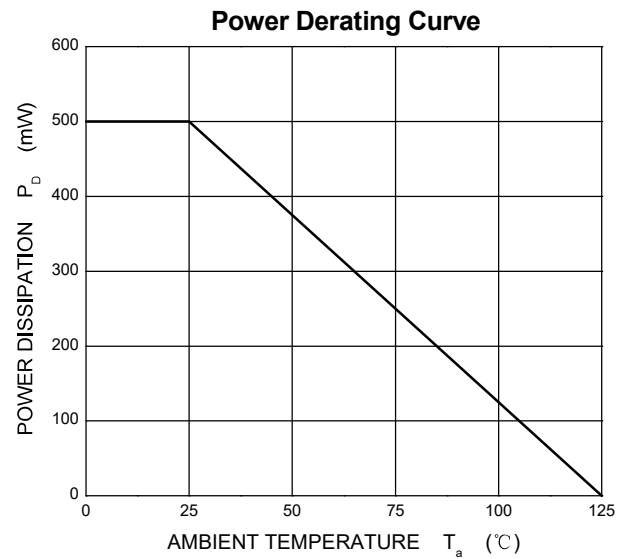
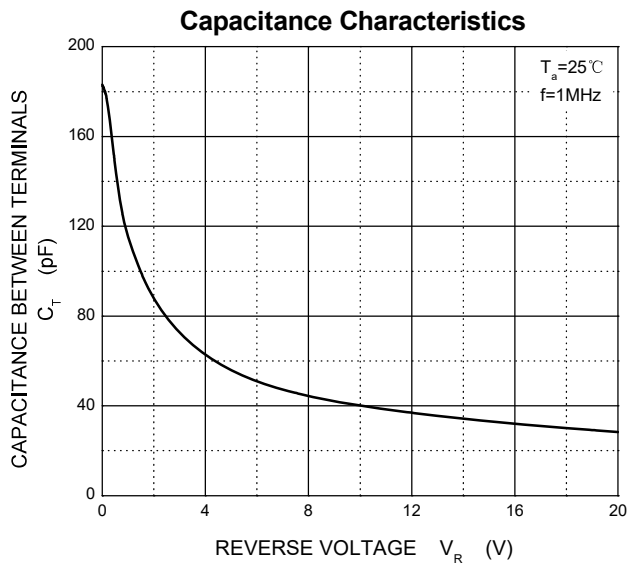
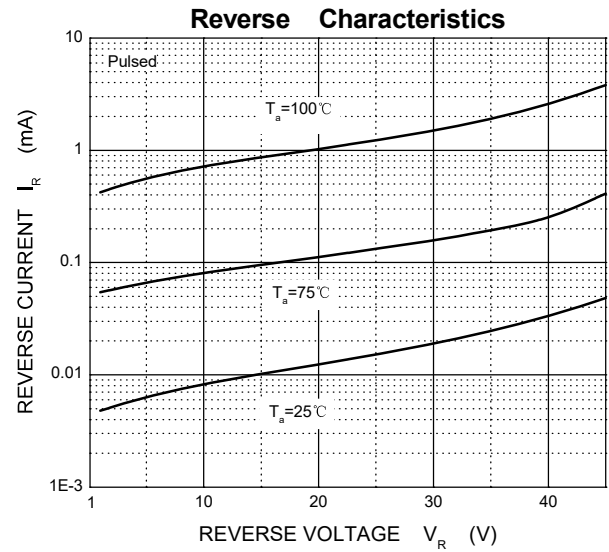
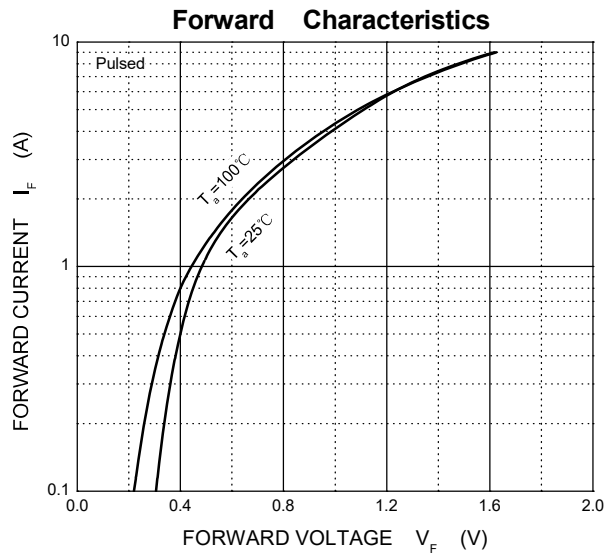
Typical Characteristics

B5818W



Typical Characteristics

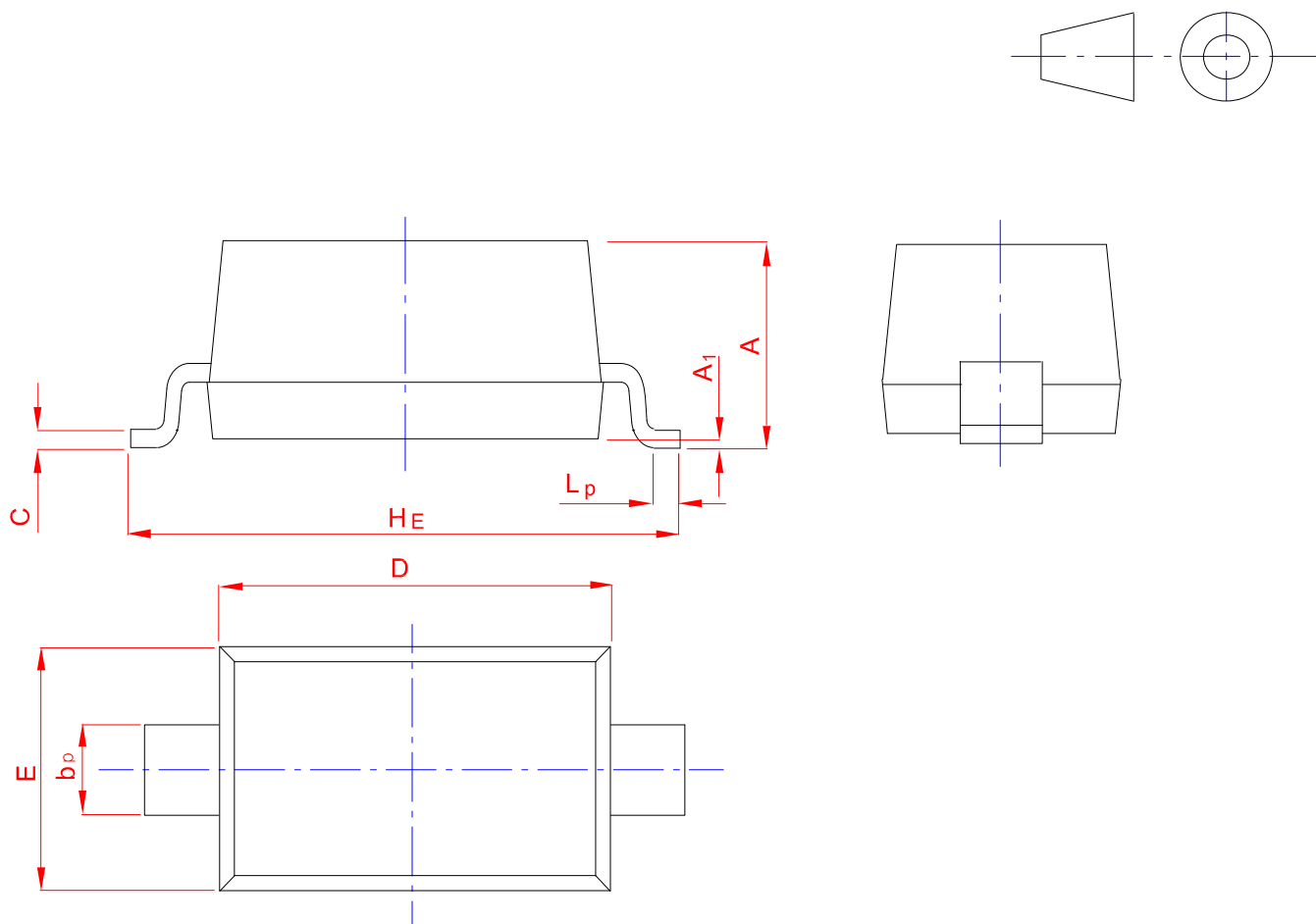
B5819W



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



UNIT	A	b _p	C	D	E	H _E	A ₁	L _p
mm	1.20 0.90	0.60 0.50	0.135 0.100	2.75 2.55	1.65 1.55	3.85 3.55	0.10 0.01	0.50 0.20

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