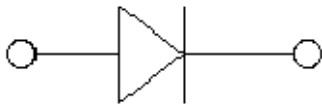


Schottky Barrier Rectifier

Features

- V_R 20V/30V/40V
- I_{FAV} 1A



Typical Applications

- Extreme fast switches

Mechanical Data

- **Package:** SOD123
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

	Marking
B5817W	SJ
B5818W	SK
B5819W	SL

■Maximum Ratings ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Conditions	VALUE
Repetitive peak reverse voltage	V_{RRM}	V		B5817W 20
				B5818W 30
				B5819W 40
Reverse voltage	V_R	V	$I_R=1\text{mA}$	B5817W 20
				B5818W 30
				B5819W 40
Peak forward surge current	I_{FSM}	A	$t_p=8.3\text{ms}$, half sine	10
Average forward current	I_{FAV}	A	$T_c=90^\circ\text{C}$	1
Maximum junction temperature	T_J	$^\circ\text{C}$		-65 to +125
Storage temperature range	T_{stg}	$^\circ\text{C}$		-65 to +150
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	$^\circ\text{C}/\text{W}$		500

■Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Conditions	VALUE
Maximum Forward voltage	V_F	V	$I_F=1\text{A}$, $T_J=25^\circ\text{C}$	B5817W 0.45
				B5818W 0.55
				B5819W 0.60
	V_F	V	$I_F=3\text{A}$, $T_J=25^\circ\text{C}$	B5817W 0.75
				B5818W 0.875
				B5819W 0.90
Maximum Reverse current	I_R	μA	B5817W $V_R=20\text{V}$, $T_A=25^\circ\text{C}$	200
			B5818W $V_R=30\text{V}$, $T_A=25^\circ\text{C}$	40
			B5819W $V_R=40\text{V}$, $T_A=25^\circ\text{C}$	40
Minimum Breakdown voltage	$V_{(BR)}$	V	$I_R=1\text{mA}$	B5817W 20
				B5818W 30
				B5819W 40
Maximum Diode capacitance	C_D	pF	$V_R=4\text{V}$, $f=1\text{MHz}$	120

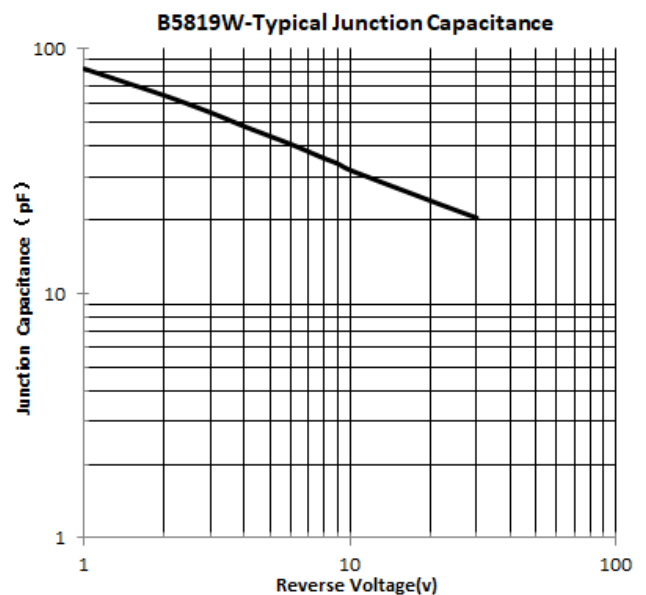
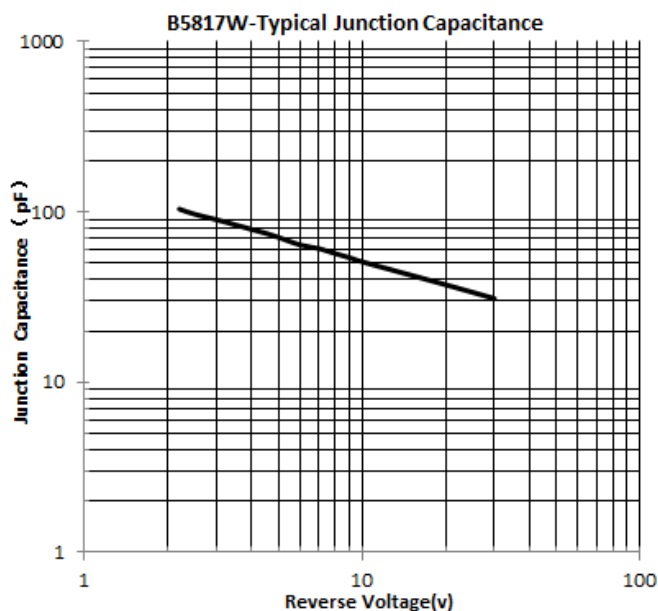
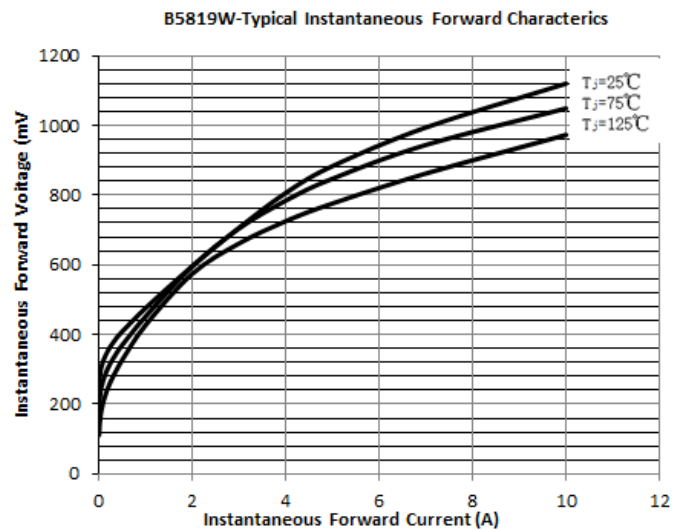
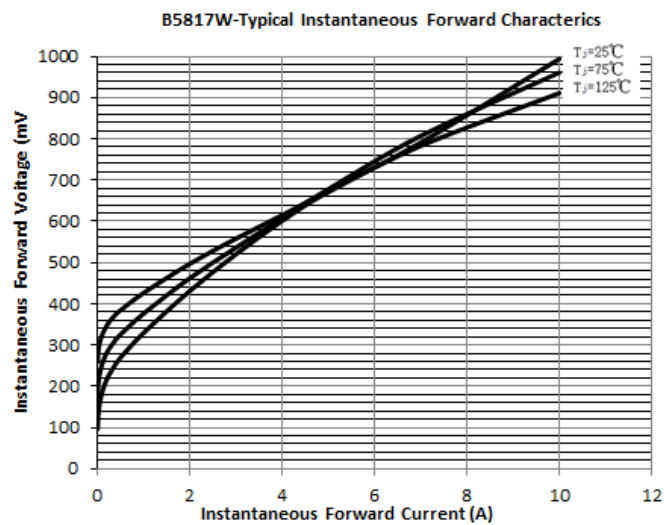


B5817W THRU B5819W

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
B5817W Thru B5819W	F2	Approximate 0.011	3000	30000	120000	7" reel

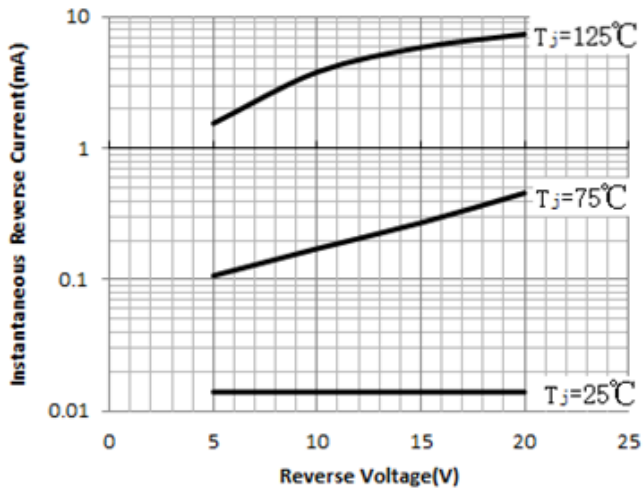
■ Characteristics (Typical)



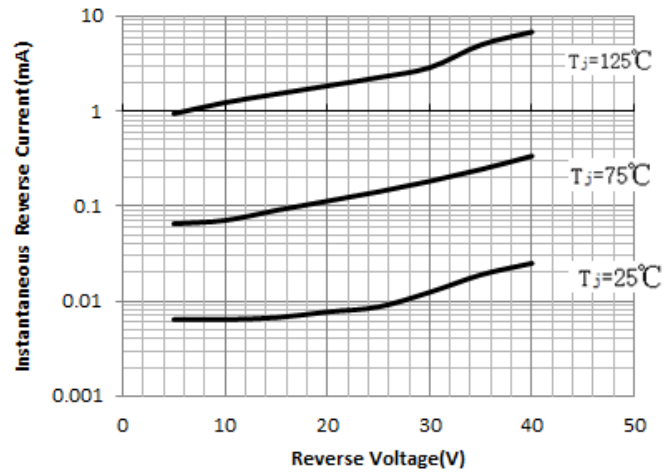


B5817W THRU B5819W

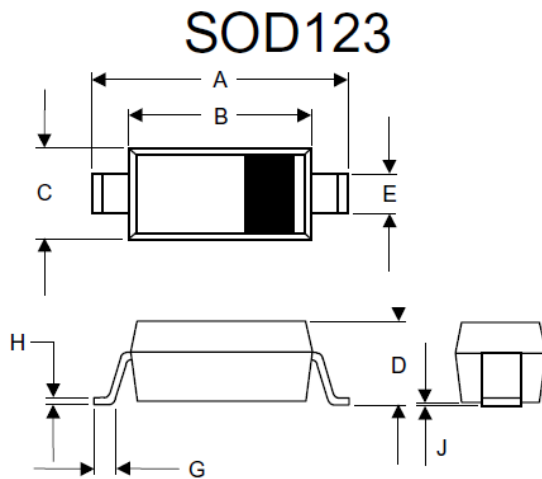
B5817W-Typical Reverse Characteristics



B5819W-Typical Reverse Characteristics

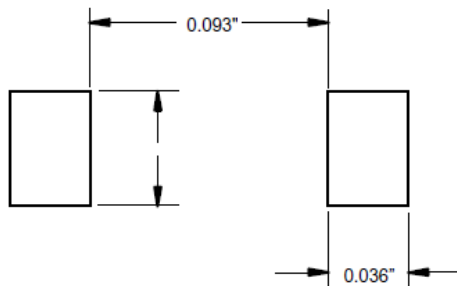


■ Outline Dimensions



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	----	.053	----	1.35	
E	.012	.031	0.30	.78	
G	.006	----	0.15	----	
H	----	.01	----	.25	
J	----	.006	----	.15	

■ Soldering Footprint



Unit: inches



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