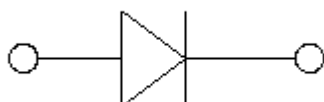


Schottky Barrier Rectifier

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 (Ta=25°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	$I_R=1mA$	B5817W	20
				B5818W	30
				B5819W	40
Peak forward surge current	I_{FSM}	A	$t_p=8.3ms$, half sine	10	
Average forward current	I_{FAV}	A	$T_c=90^\circ C$	1	
Maximum junction temperature	T_j	$^\circ C$		-65 to +125	
Storage temperature range	T_{stg}	$^\circ C$		-65 to +150	
Thermal Resistance Junction to Ambient Air(*Note)	$R_{\theta JA}$	$^\circ C / W$		500	

*Note: Device mounted on PCB (7.6mm*9.4mm*0.87mm)



B5817W THRU B5819W

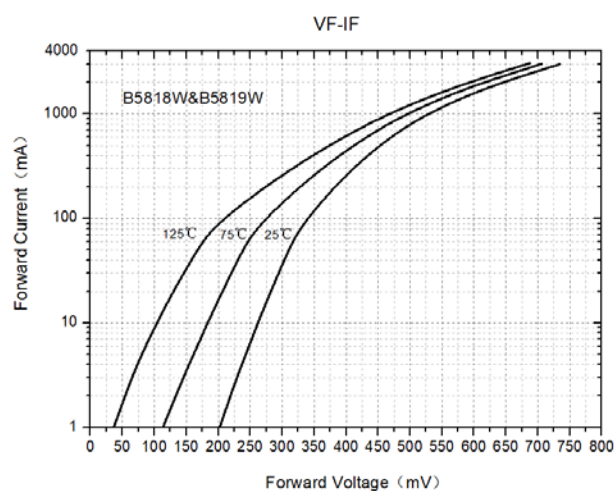
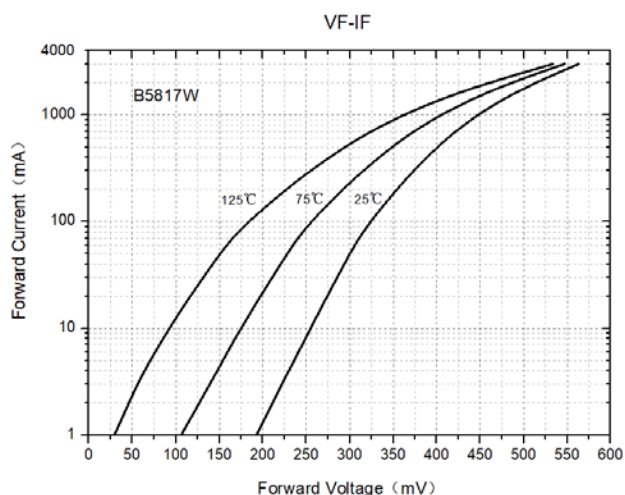
■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Conditions		VALUE	
Maximum Forward voltage	V _F	V	I _F =1A, T _J =25°C		B5817W	0.45
					B5818W	0.55
					B5819W	0.60
	V _F	V	I _F =3A, T _J =25°C		B5817W	0.75
					B5818W	0.875
					B5819W	0.90
Maximum Reverse current	I _R	uA	B5817W	V _R =20V, T _A =25°C	200	
			B5818W	V _R =30V, T _A =25°C	40	
			B5819W	V _R =40V, T _A =25°C	40	
Minimum Breakdown voltage	V _(BR)	V	I _R =1mA		B5817W	20
					B5818W	30
					B5819W	40
Maximum Diode capacitance	C _D	pF	V _R =4V, f =1MHz		120	

■ Ordering Information (Example)

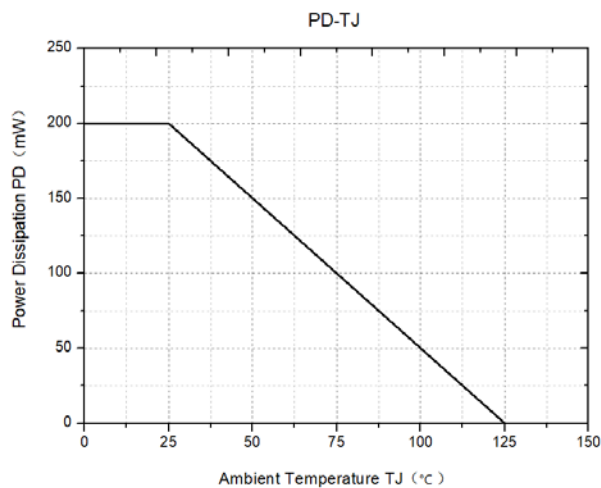
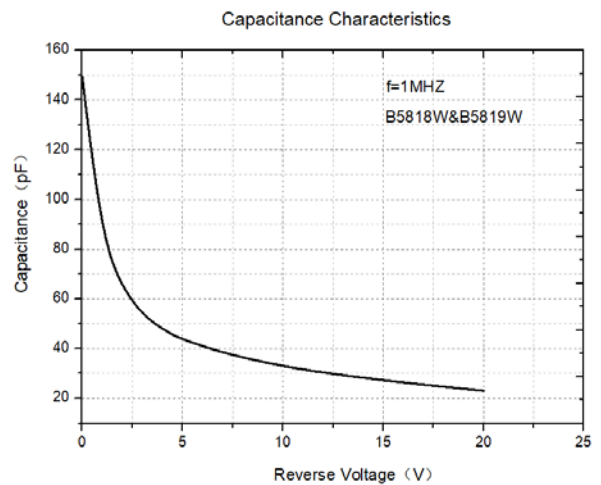
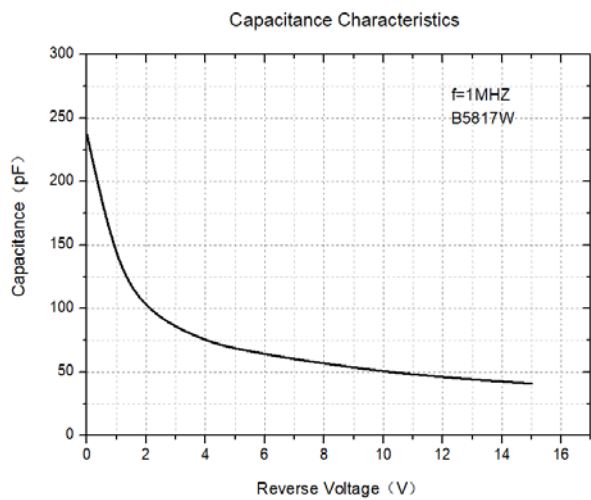
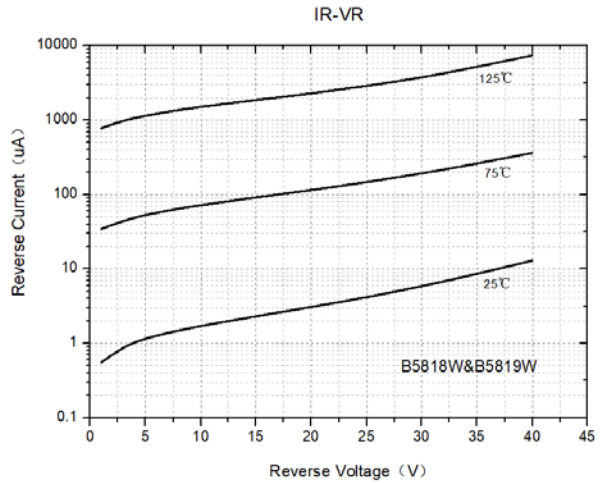
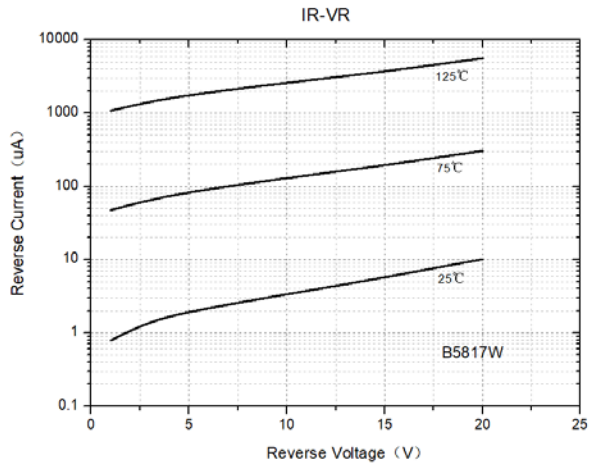
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
B5817W Thru B5819W	F2	Approximate 0.011	3000	30000	120000	7" reel

■ Characteristics (Typical)





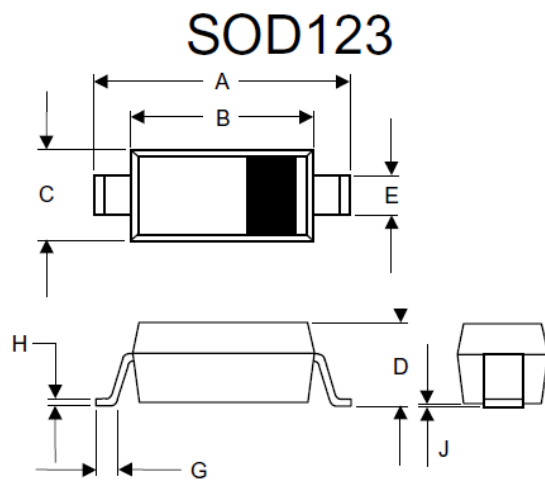
B5817W THRU B5819W





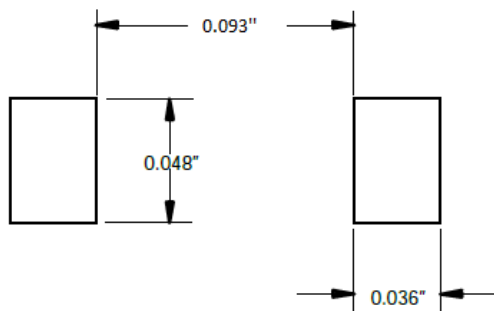
B5817W THRU B5819W

■ SOD-123 Package Outline Dimensions



DIM	DIMENSIONS			
	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.140	0.152	3.55	3.85
B	0.100	0.112	2.55	2.85
C	0.055	0.071	1.40	1.80
D	--	0.053	--	1.35
E	0.012	0.031	0.30	0.78
G	0.006	--	0.15	--
H	--	0.010	--	0.25
J	--	0.006	--	0.15

■ SOD-123 Soldering Footprint



Unit: inches



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