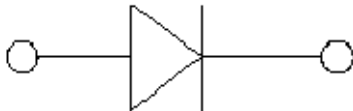


Schottky Barrier Rectifier

Features

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



Typical Applications

- Extreme fast switches

Mechanical Data

- **Package:** SOD323
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

	Marking
B5817WS	SJ
B5818WS	SK
B5819WS	SL

■ Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Conditions	VALUE	
Repetitive peak reverse voltage	V_{RRM}	V		B5817WS	20
				B5818WS	30
				B5819WS	40
Reverse voltage	V_R	V	$I_R=1mA$	B5817WS	20
				B5818WS	30
				B5819WS	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	$R_{\theta JA}$	$^\circ C/W$		500	

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

PARAMETER	SYMBOL	UNIT	Conditions	VALUE	
Maximum Forward voltage	V_F	V	$I_F=1A, T_J=25^\circ C$	B5817WS	0.45
				B5818WS	0.55
				B5819WS	0.60
	V_F	V	$I_F=3A, T_J=25^\circ C$	B5817WS	0.75
				B5818WS	0.875
				B5819WS	0.90
Maximum Reverse current	I_R	μA	B5817WS	$V_R=20V, T_A=25^\circ C$	200
			B5818WS	$V_R=30V, T_A=25^\circ C$	40
			B5819WS	$V_R=40V, T_A=25^\circ C$	40
Minimum Breakdown voltage	$V_{(BR)}$	V	$I_R=1mA$	B5817WS	20
				B5818WS	30
				B5819WS	40
Maximum Diode capacitance	C_D	pF	$V_R=4V, f=1MHz$	120	



B5817WS THRU B5819WS

Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
B5817WS Thru B5819WS	F2	Approximate 0.004	3000	30000	120000	7" reel

Characteristics (Typical)

Fig.1 Forward Current Derating Curve

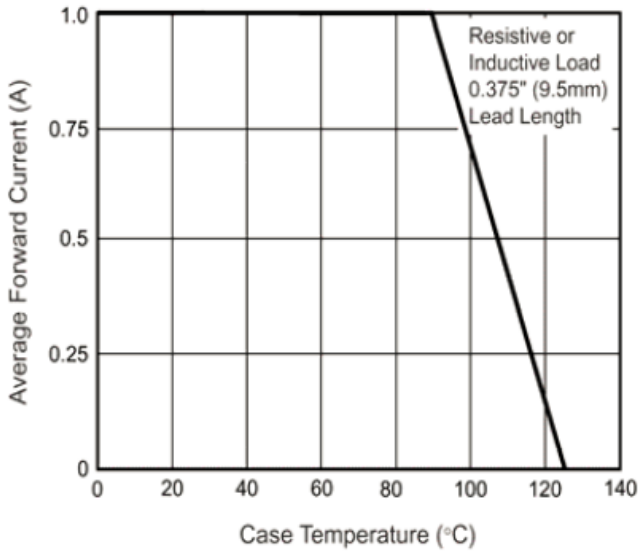


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

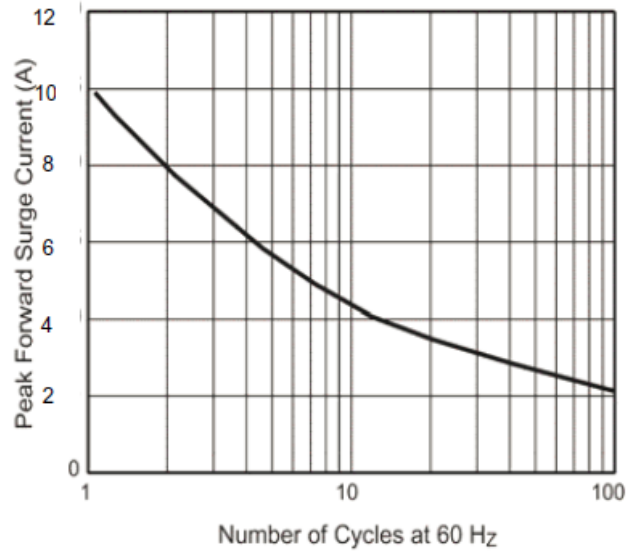


Fig.3 Typical Instantaneous Forward Characteristics

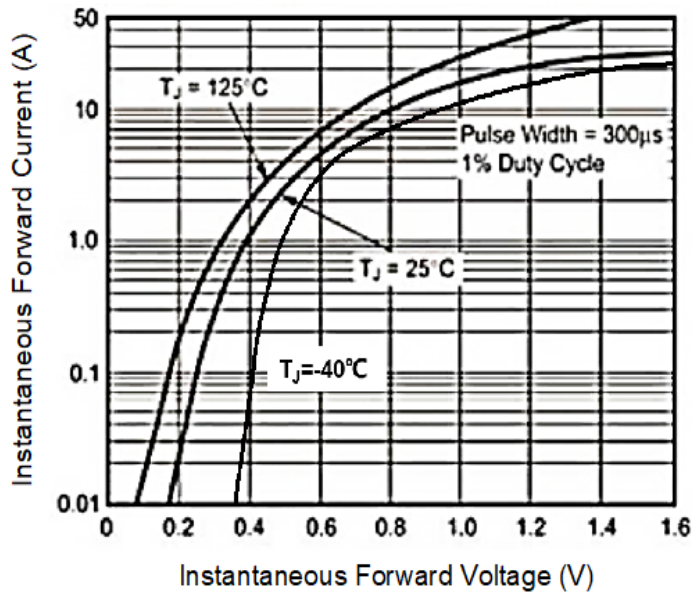
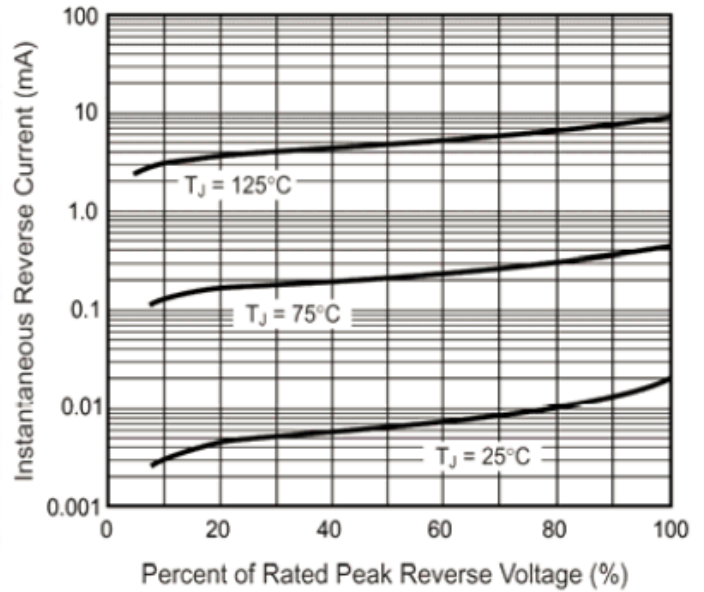


Fig.4 Typical Reverse Characteristics





B5817WS THRU B5819WS

Fig.5 Typical Junction Capacitance

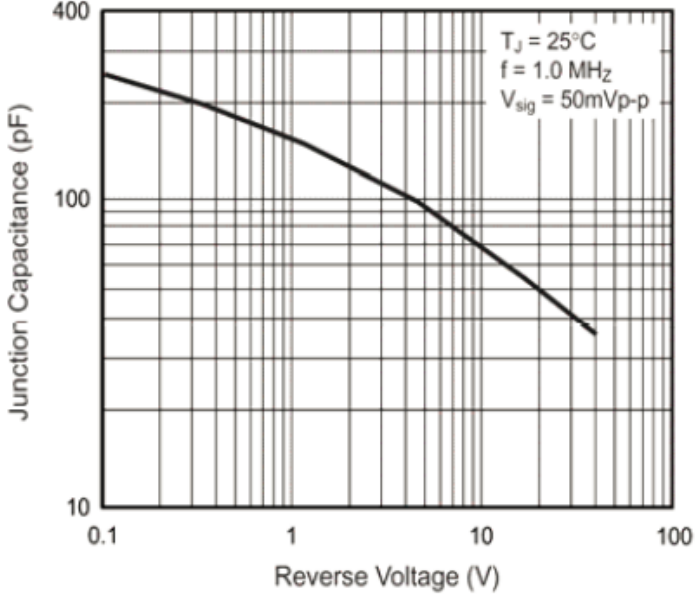


Fig.6 Typical Transient Thermal Impedance

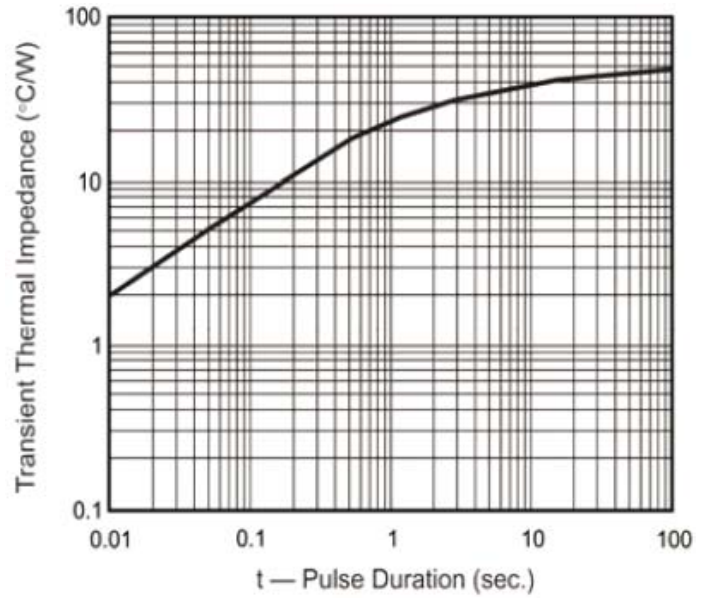
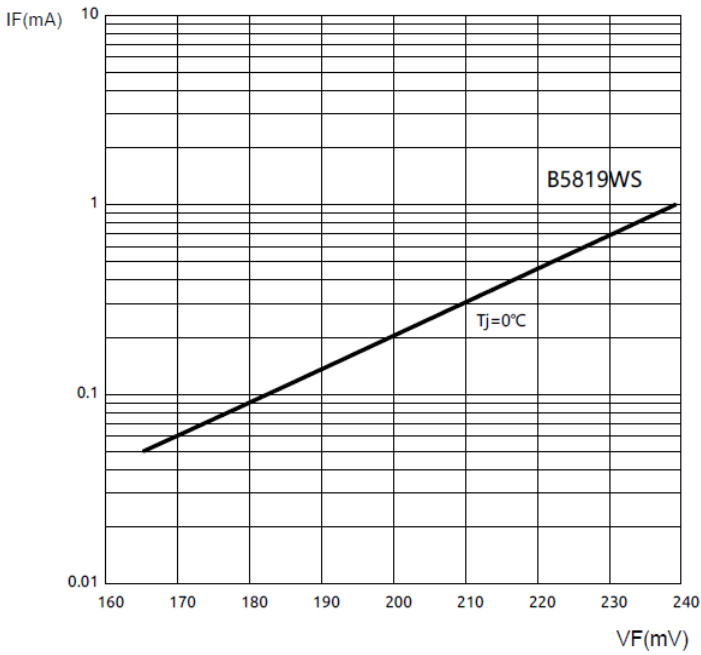


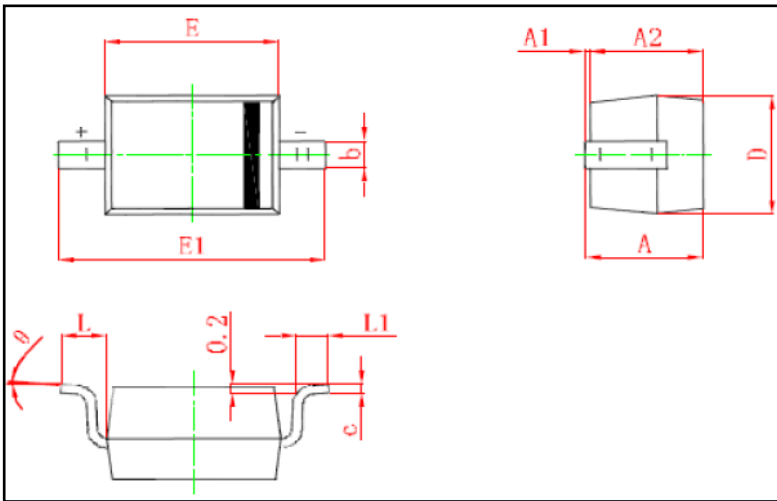
Fig.7 Forward Characteristics





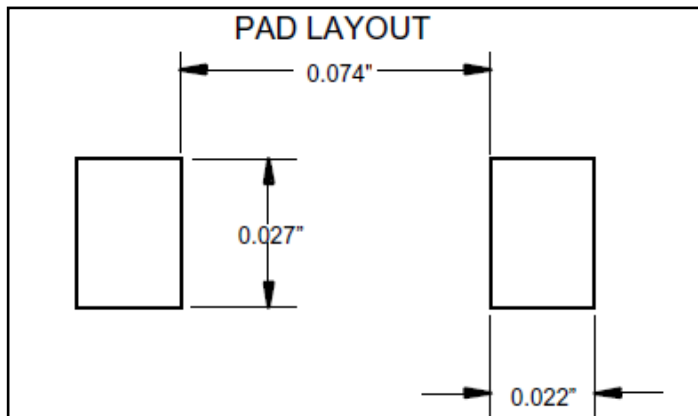
B5817WS THRU B5819WS

■ Outline Dimensions



Symbol	Min. (mm)	Max. (mm)
A		1.000
A1	0.000	0.100
A2	0.800	0.900
b	0.250	0.400
c	0.080	0.150
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.700
L	0.475REF	
L1	0.250	0.400
θ	0°	8°

■ Soldering Footprint



Unit: inches



B5817WS THRU B5819WS

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