

SCHOTTKY BARRIER

Features

- ◆ For use in low voltage, high frequency inverters
- ◆ Free wheeling, and polanty protection applications

SOD-323



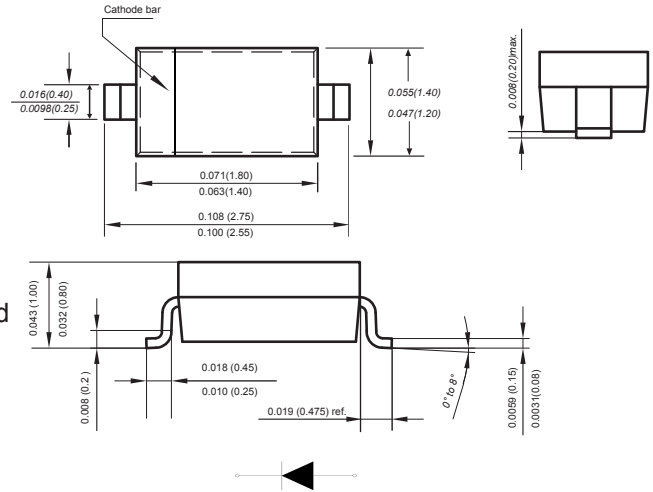
Mechanical Data

Case: JEDEC SOD-323 molded plastic body
 Terminals: Plated leads solderable per MIL-STD-750, Method 2026

Polarity: Polarity symbols marked on case

Weight : 0.00019ounce, 0.00548grams

Marking: B5817WS:SJ, B5818WS:SK, B5819WS:SL



Dimensions in inches and (millimeters)

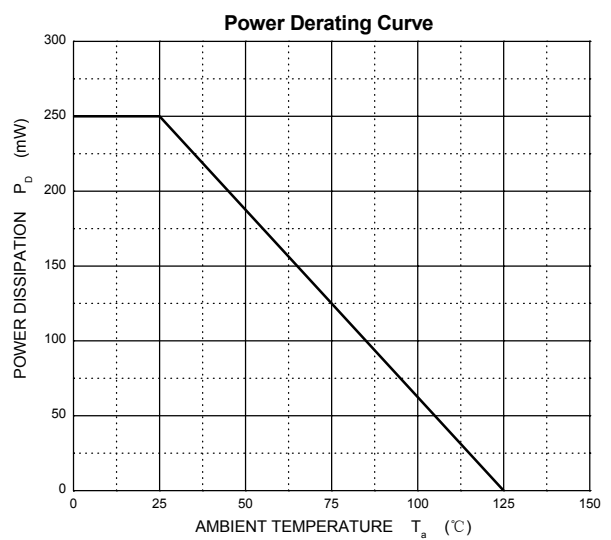
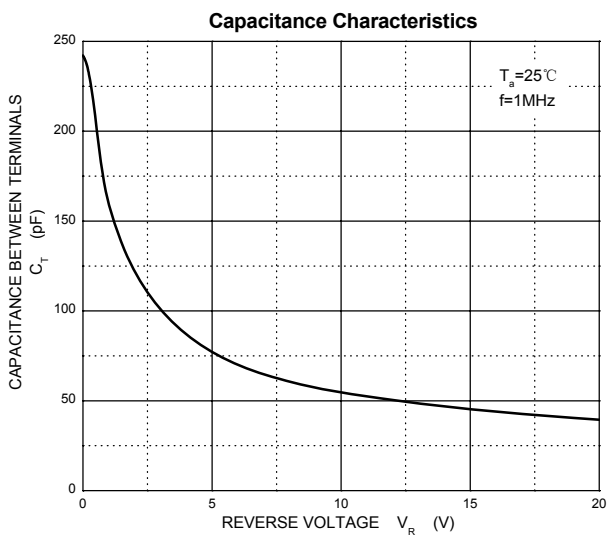
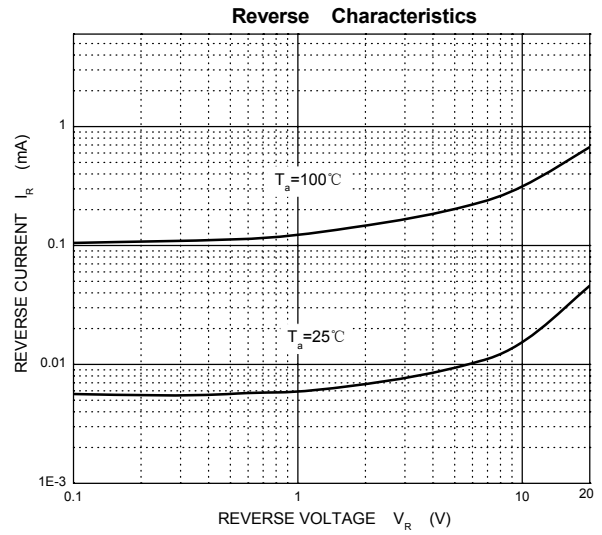
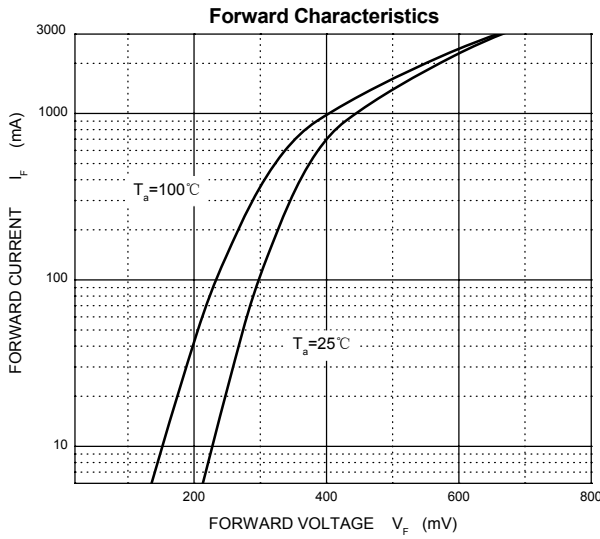
Absolute Maximum Ratings at 25 °C

PARAMETER	SYMBOLS	B5817WS	B5818WS	B5819WS	UNITS
Peak repetitive peak reverse voltage	V_{RRM}				
Working peak DC Blocking voltage	V_{RWM}	20	30	40	V
RMS Reverse voltage	$V_{R(RMS)}$	14	21	28	V
Average rectified output current	I_o		1		A
Peak forward surge current at 8.3ms	I_{FSM}		25		A
Power dissipation	P_d		500		mW
Thermal resistance junction to ambient	$R_{\theta JA}$		200		°C/W
Operating Junction Temperature Range	T_j		-55 to +125		
Storage temperature	T_{STG}		-55 to +125		
Non-Repetitive peak reverse voltage	V_{RM}	20	30	40	V

Characteristics at Ta= 25 °C

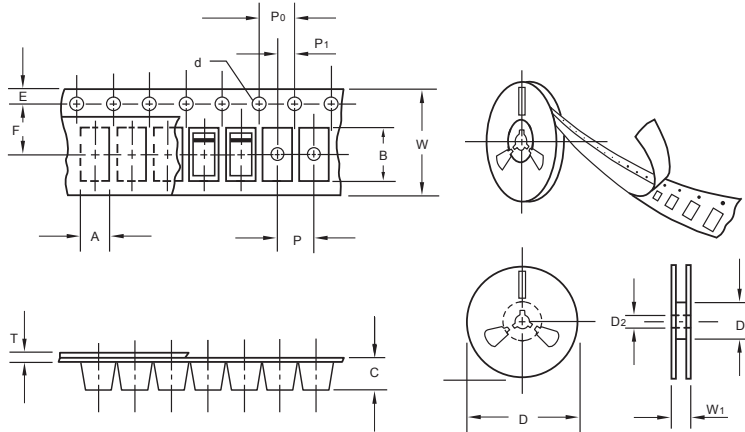
PARAMETER	SYMBOLS	Min.	Max.	Unit	Test conditions	
Reverse breakdown voltage	$V_{(BR)}$	20		V	$I_R=1mA$ B5817WS	
		30		V	$I_R=10mA$ B5818WS	
		40		V	B5819WS	
Reverse voltage leakage current TA = 25°C TA = 100°C	I_R		1	mA	$V_R=20V$ B5817WS	
			10		$V_R=30V$ B5818WS	
					$V_R=40V$ B5819WS	
Forward voltage	V_F		0.45 0.75	V	$I_F=1A$ $I_F=3A$	
			0.55 0.875	V		B5818WS
			0.6 0.9	V		B5819WS
Diode capacitance	C_D		110	pF	$V_R=4V, f=1.0MHz$	

Typical Characteristics



The curve above is for reference only.

Packing information



unit:mm

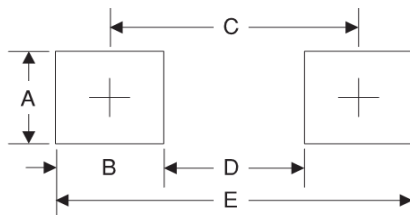
Item	Symbol	Tolerance	SOD-323
Carrier width	A	0.1	2.1
Carrier length	B	0.1	4.0
Carrier depth	C	0.1	1.60
Sprocket hole	d	0.05	1.55
7" Reel outside diameter	D	2.0	178.00
7" Reel inner diameter	D ₁	min	50.0
Feed hole diameter	D ₂	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	3.50
Punch hole pitch	P	0.1	4.00
Sprocket hole pitch	P ₀	0.1	4.00
Embossment center	P ₁	0.1	2.00
Overall tape thickness	T	0.1	0.25
Tape width	W	0.3	8.15
Reel width	W ₁	1.0	10.5

Note: Devices are packed in accordance with EIA standard RS-481-A and specifications listed above.

Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (m/m)	BOX (pcs)	INNER BOX (m/m)	REEL DIA, (m/m)	CARTON SIZE (m/m)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
SOD-323	7"	3,000	4.0	45,000	210*208*203	178	430*430*235	180,000	

Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	0.7	0.028
B	0.7	0.028
C	2.15	0.085
D	1.45	0.057
E	2.85	0.112