DESCRIPTION

The B5817WS-B5819WS are available in SOD-323 Package

ORDERING INFORMATION

Package Type	Part Number
SOD-323	B5817WS
	B5818WS
	B5819WS
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

FEATURES

- Extremely low V_F
- Low stored change, majority carrier conduction
- Low power loss/high efficient
- Available in SOD-323 Package

APPLICATION

- For Use in Low Voltage, High Frequency Inverters. Free Wheeling, And Polarity Protection Applications.

PIN DESCRIPTION

ABSOLUTE MAXIMUM RATINGS

@ T_A=25°C, unless otherwise specified.

Parameter	Symbol	B5817WS	B5818WS	B5819WS	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	20	30	40	V
Peak Repetitive Peak Reverse Voltage	V_{RRM}				
Working Peak Reverse Voltage	V_{RWM}	20	30	40	V
DC Reverse Voltage	V_R				
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	V
Average Rectified Output Current	I_O		1		A
Peak Forward Surge Current @ 8.3ms	I_{FSM}		20		A
Power Dissipation	P_D		250		mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$		500		°C/W
Storage Temperature	T_{STG}		-65 ~+150		°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these o r any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

ELECTRICAL CHARACTERISTICS

@ T_A=25°C, unless otherwise specified.

Parameter	Symbol	Condition		Min	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	I_R=1mA	B5817WS	20	-	V
			B5818WS	30		
			B5819WS	40		
Reverse Voltage Leakage Current	I_R	V_R=20V	B5817WS	-	1	mA
		V_R=30V	B5818WS			
		V_R=40V	B5819WS			
Forward Voltage	V_F	I_F=1A I_F=3A	B5817WS	-	0.45 0.75	V
			B5818WS	-	0.55 0.875	
			B5819WS	-	0.6 0.9	
Diode Capacitance	C_D	V_R=4V, f=1MHz		-	120	pF

TYPICAL CHARACTERISTICS

@ T_A=25°C, unless otherwise specified.
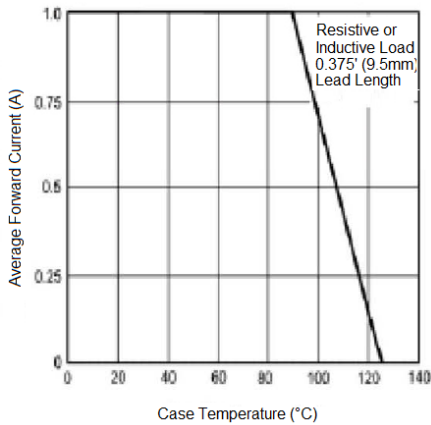
Figure. 1 Forward Current Derating Curve
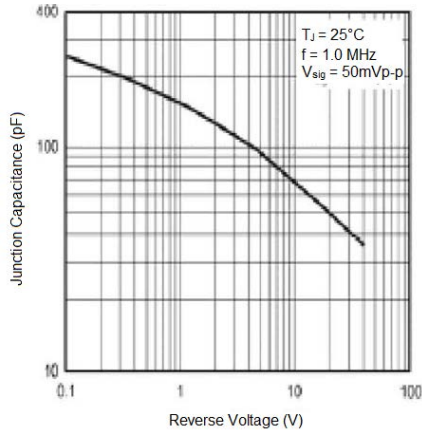

Figure. 2 Maximum Non-Repetitive Peak Forward Surge Current

Figure. 3 Typical Instantaneous Forward Characteristics
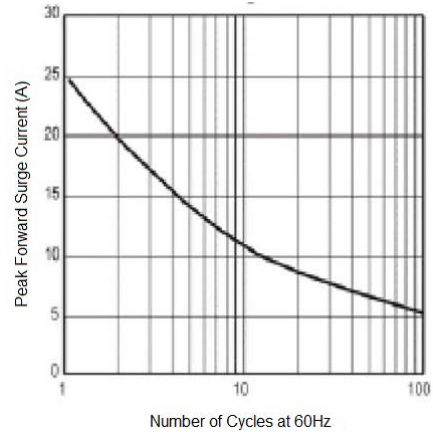
Figure. 4 Typical Reverse Characteristics

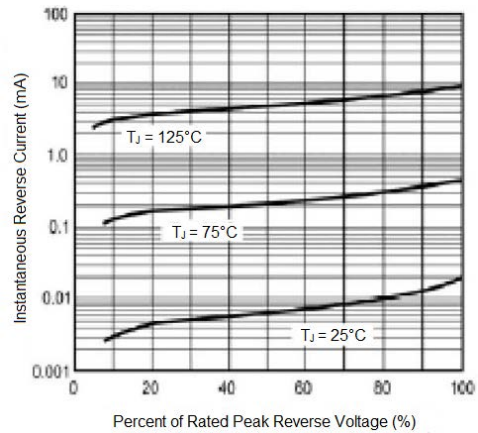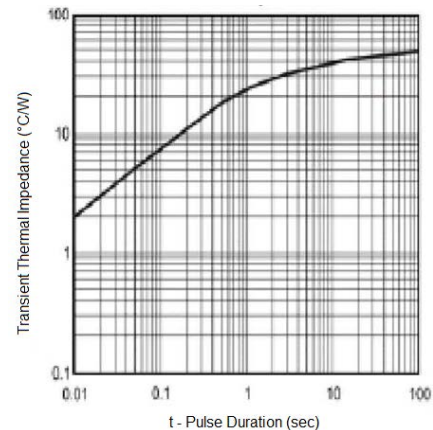Figure. 5 Typical Junction Capacitance

Figure. 6 Typical Transient Thermal Impedance

PACKAGE INFORMATION

Dimension in SOD-323 (Unit: mm)

Plastic surface mounted package

SOLDERING FOOTPRINT

Unit : mm
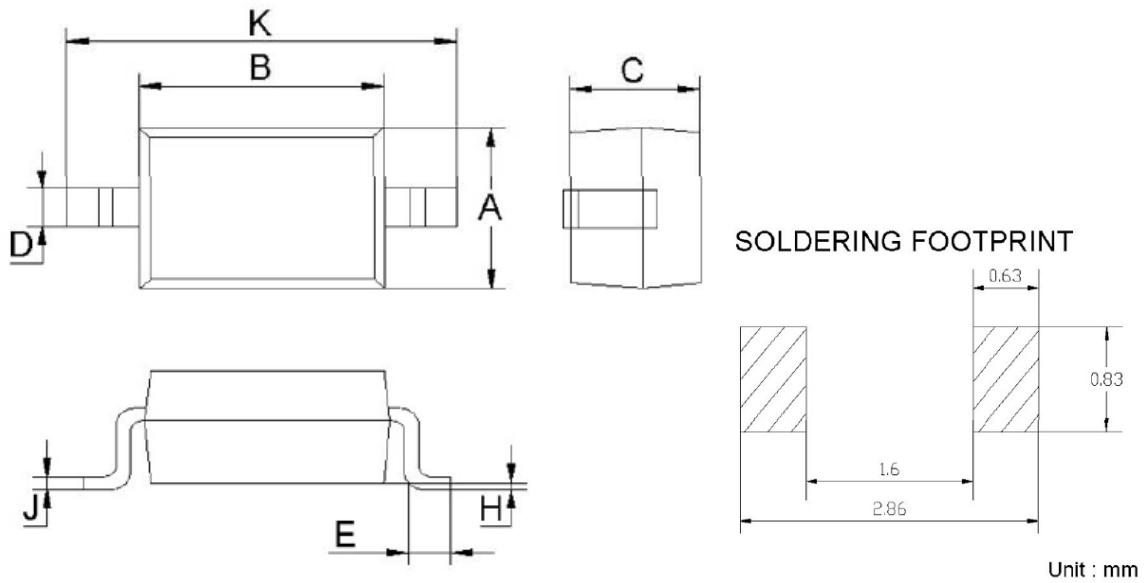
DIM	MIN	MAX
A	1.275	1.325
B	1.675	1.725
C	0.9 Typ.	
D	0.25	0.35
E	0.27	0.37
H	0.02	0.1
J	0.1 Typ.	
K	2.6	2.7

IMPORTANT NOTICE

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