

Schottky Barrier Diode

B5817W-B5819W

FEATURES

- Extremely low V_F .
- Low stored charge, majority carrier conduction.
- Low power loss/high efficient

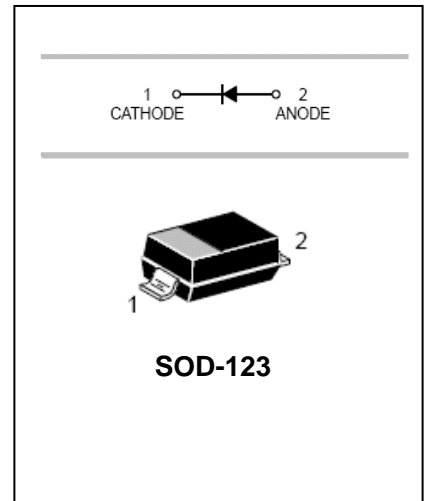


Lead-free

APPLICATIONS

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

ORDERING INFORMATION



Type No.	Marking	Package Code
B5817W	SJ	SOD-123
B5818W	SK	SOD-123
B5819W	SL	SOD-123

MAXIMUM RATING @ $T_a=25^\circ\text{C}$ unless otherwise specified

Parameter	symbol	B5817W	B5818W	B5819W	Unit
Non-Repetitive Peak reverse voltage	V_{RSM}	24	36	48	V
Peak repetitive Peak reverse voltage	V_{RRM}	20	30	40	V
Working Peak Reverse voltage	V_{RWM}				
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}	25			A
Power Dissipation	P_d	250			mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	80			$^\circ\text{C}/\text{W}$
Storage temperature	T_J, T_{STG}	-65~+125			$^\circ\text{C}$

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test Condition	MIN	MAX	UNIT	
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1mA$			V	
		B5817W	20			
		B5818W	30			
Reverse voltage leakage current	I_R	$V_R=20V$	B5817W		mA	
		$V_R=30V$	B5818W	1		
		$V_R=40V$	B5819W			
Forward voltage	V_F	B5817W	$I_F=1A$		0.45	V
			$I_F=3A$		0.75	
		B5818W	$I_F=1A$		0.55	
			$I_F=3A$		0.875	
		B5819W	$I_F=1A$		0.6	
			$I_F=3A$		0.9	
Diode capacitance	C_D	$V_R=4V, f=1MHz$		120	pF	

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

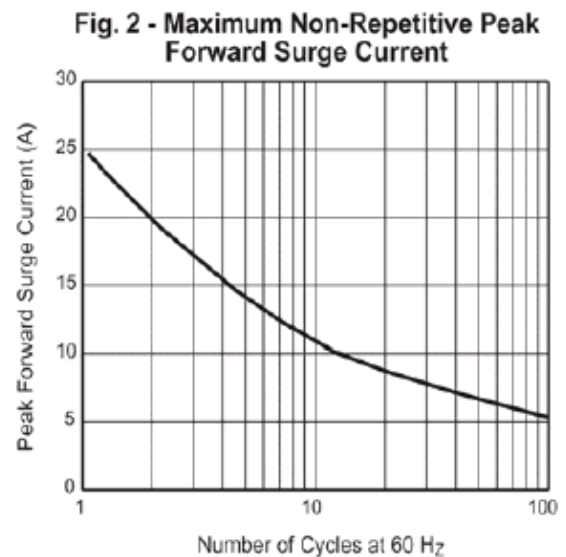
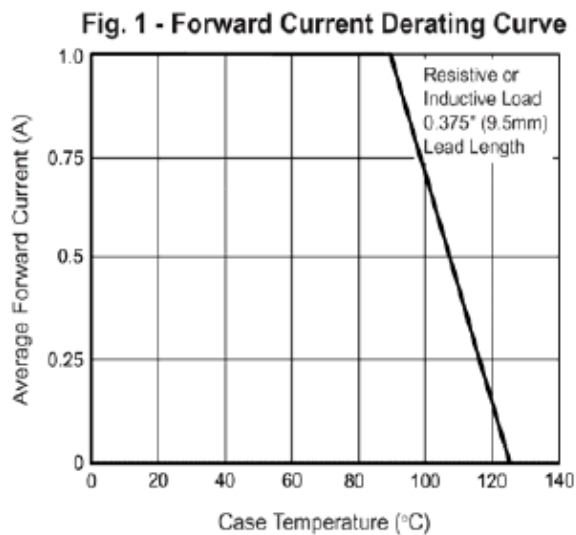


Fig. 3 - Typical Instantaneous Forward Characteristics

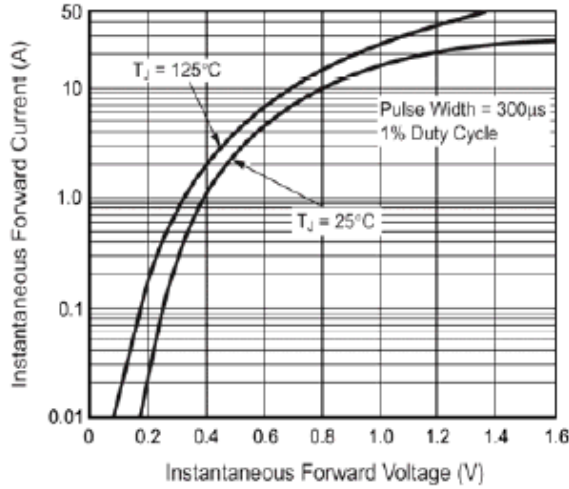


Fig. 4 - Typical Reverse Characteristics

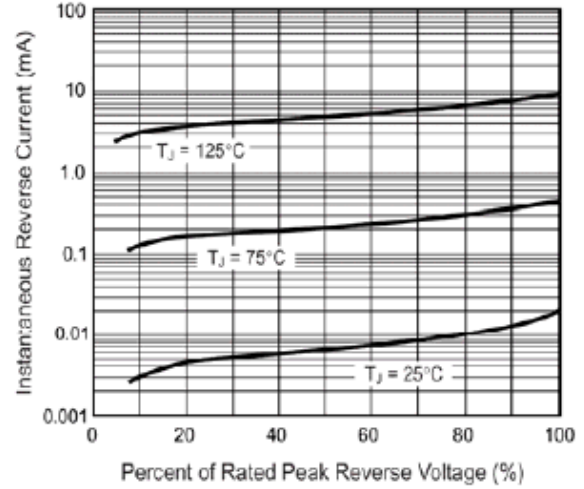


Fig. 5 - Typical Junction Capacitance

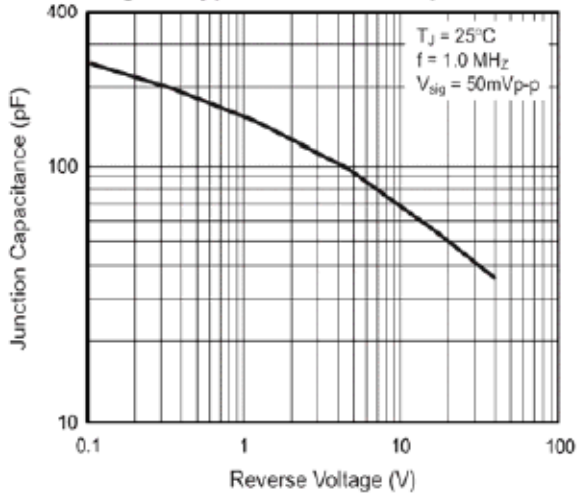
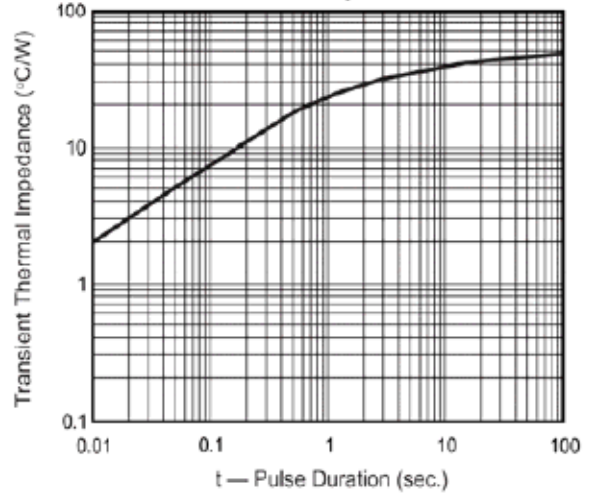


Fig. 6 - Typical Transient Thermal Impedance



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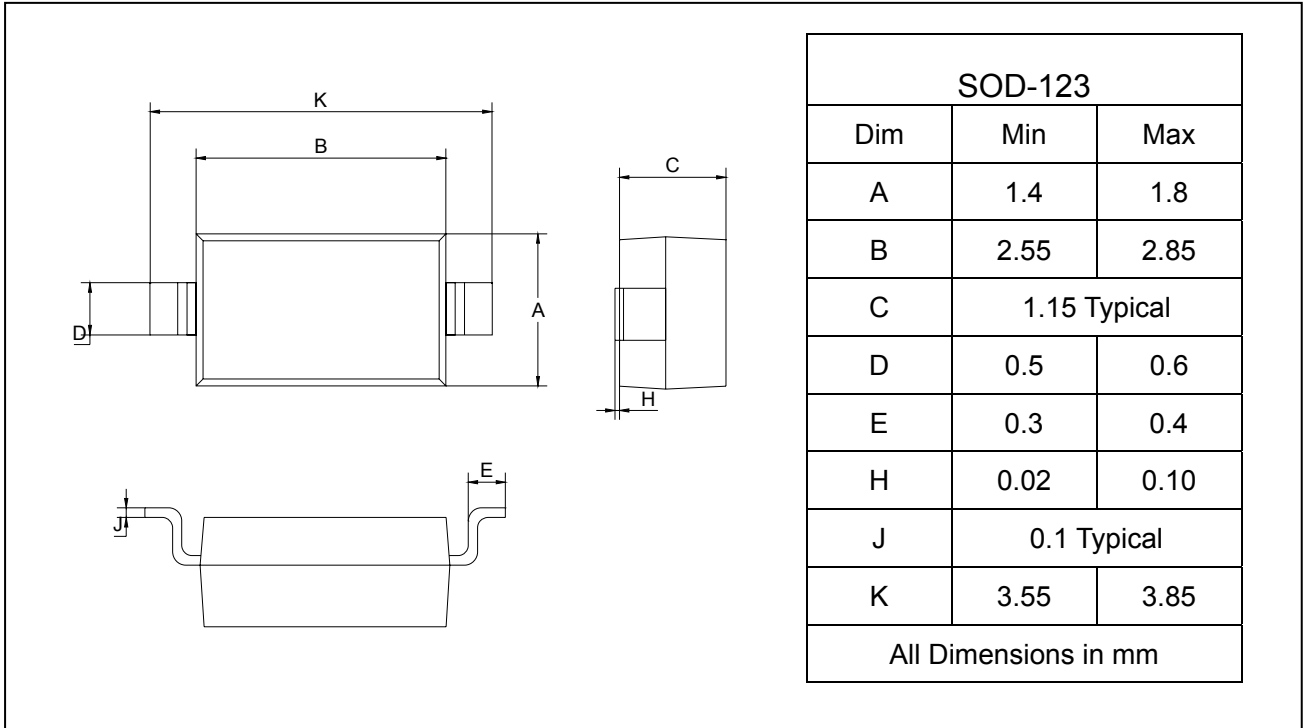
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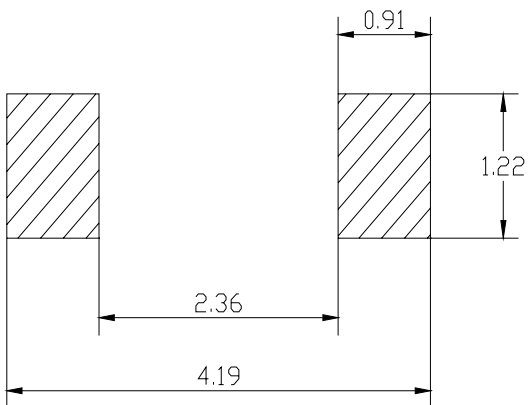
PACKAGE OUTLINE

Plastic surface mounted package

SOD-123



SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

Device	Package	Shipping
B5817W-B5819W	SOD-123	3000/Tape&Reel