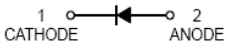
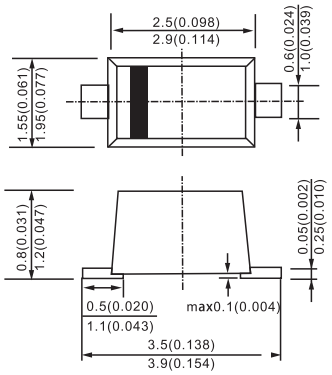
B5817W-B5819W

Schottky Barrier Diode

FEATURES

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





Dimensions in millimeters

SOD-123FL

APPLICATIONS

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

MAXIMUM RATING @ Ta=25℃ 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 Working Peak Reverse voltage DC Reverse Voltage	V_{RRM} V_{RWM} V_R	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@=8.3ms	I_{FSM}	25			A
Power Dissipation	P_d	250			mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	80			℃/W
Storage temperature	T_J,T_{STG}	-65~+125			℃

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test Condition		MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)}$	I_R=1mA				
			B5817W	20		V
			B5818W	30		
			B5819W	40		
Reverse voltage leakage current	I_R	V_R=20V	B5817W		1	mA
		V_R=30V	B5818W			
		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℃ unless otherwise specified

Fig. 1 - Forward Current Derating Curve

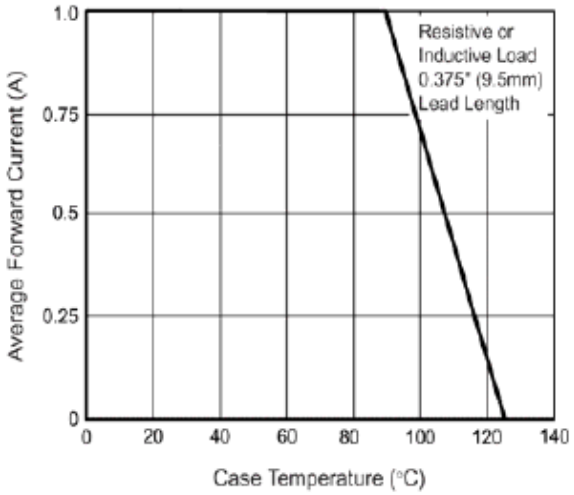


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

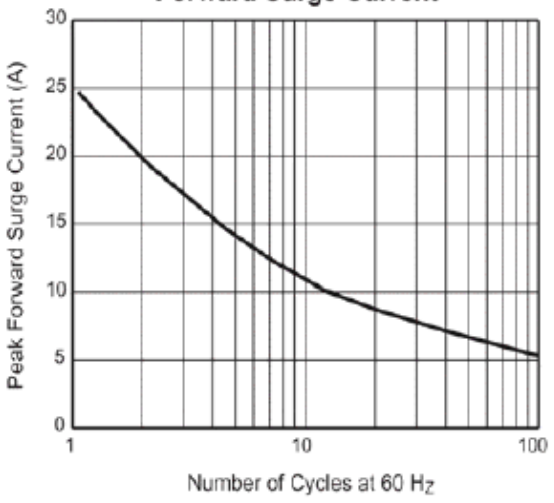


Fig. 3 - Typical Instantaneous Forward Characteristics

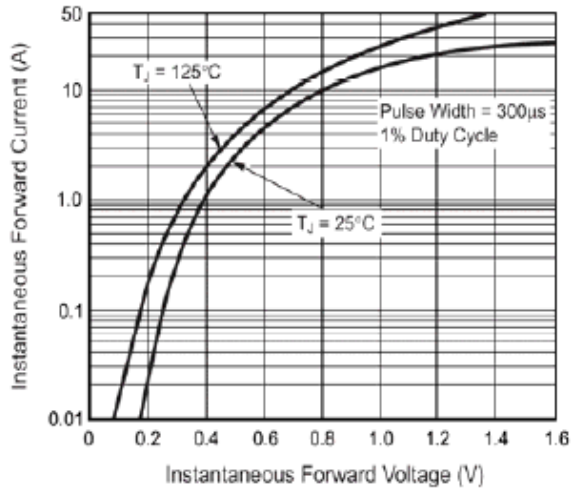


Fig. 4 - Typical Reverse Characteristics

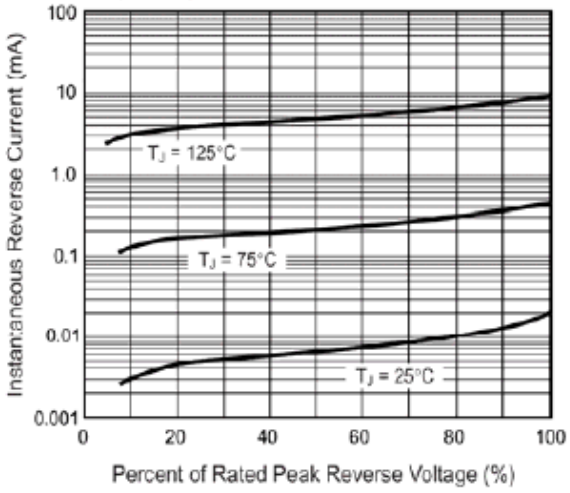


Fig. 5 - Typical Junction Capacitance

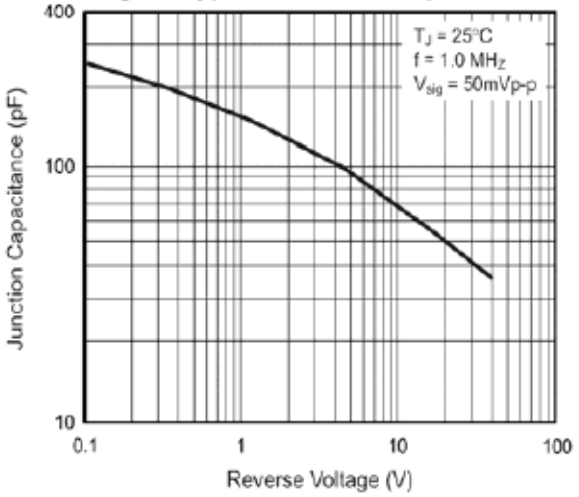


Fig. 6 - Typical Transient Thermal Impedance