

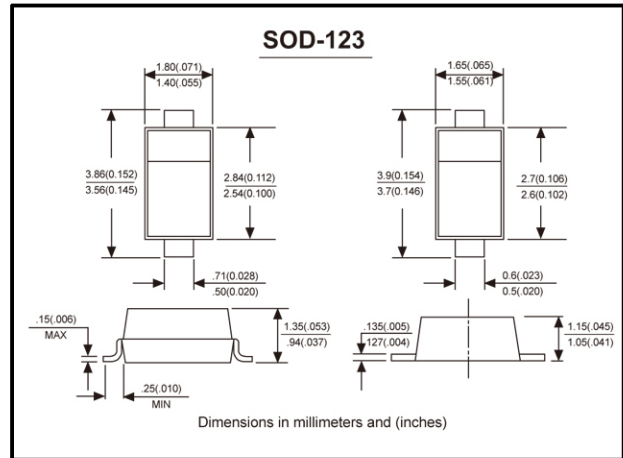
# B5817W-B5819W

● **FEATURES**

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

● **MECHANICAL DATA**

**Case:** Molded plastic body  
**Terminals:** Plated leads solderable per MIL-STD-750, Method 2026  
**Polarity:** Polarity symbols marked on case  
**Marking:** B5817W:SJ, B5818W:SK, B5819W:SL



● Maximum ratings and electrical characteristics, Single diode @TA=25°C

PARAMETER	SYMBOLS	B5817W	B5818W	B5819W	UNITS
Peak repetitive peak reverse voltage	V <sub>RRM</sub>				
Working peak reverse voltage	V <sub>RWM</sub>	20	30	40	V
DC Blocking voltage	V <sub>R</sub>				
RMS Reverse voltage	V <sub>R(RMS)</sub>	14	21	28	V
Average rectified output current	I <sub>o</sub>		1		A
Peak forward surge current @=8.3ms	I <sub>FSM</sub>		25		A
Repetitive peak forward current	I <sub>FRM</sub>		625		mA
Power dissipation	P <sub>d</sub>		250		mW
Thermal resistance junction to ambient	R <sub>θJA</sub>		500		K/W
Storage temperature	T <sub>STG</sub>		-65 to +150		°C
Non-Repetitive peak reverse voltage	V <sub>RM</sub>	20	30	40	V

Electrical ratings @TA=25°C

PARAMETER	SYMBOLS	Min.	Max.	Unit	Test conditions
Reverse breakdown voltage	V <sub>(BR)</sub>	20		V	I <sub>R</sub> =1mA B5817W B5818W B5819W
		30		V	
		40		V	
Reverse voltage leakage current	I <sub>R</sub>		1	mA	V <sub>R</sub> =20V B5817W
					V <sub>R</sub> =30V B5818W
					V <sub>R</sub> =40V B5819W
Forward voltage	V <sub>F</sub>		0.45	V	I <sub>F</sub> =1A B5817W I <sub>F</sub> =3A B5818W B5819W
			0.75	V	
			0.55	V	
		0.875	V		
		0.6	V		
		0.9	V		
Diode capacitance	C <sub>D</sub>		120	pF	V <sub>R</sub> =4V, f=1.0MHz

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FIG. 1- FORWARD CURRENT DERATING CURVE

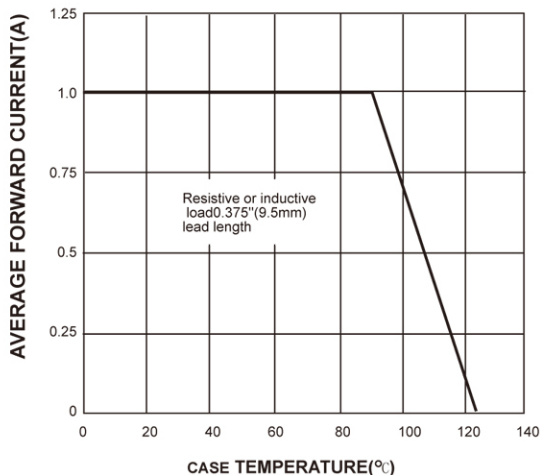


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

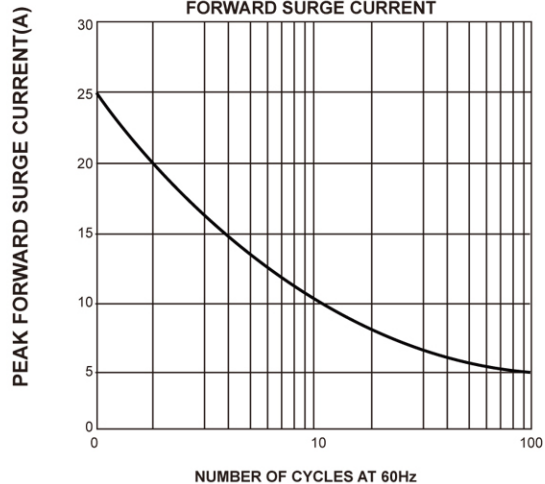


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

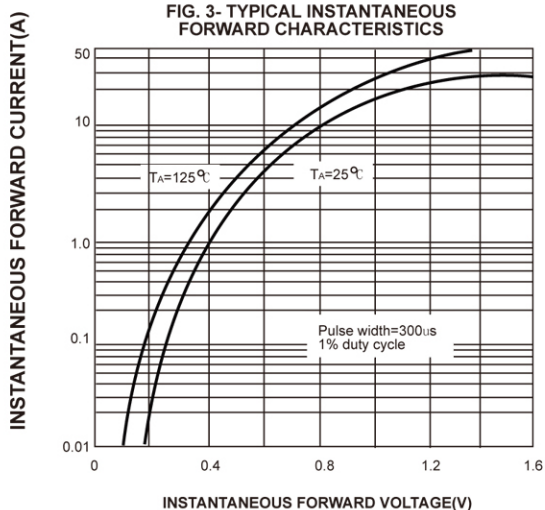


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

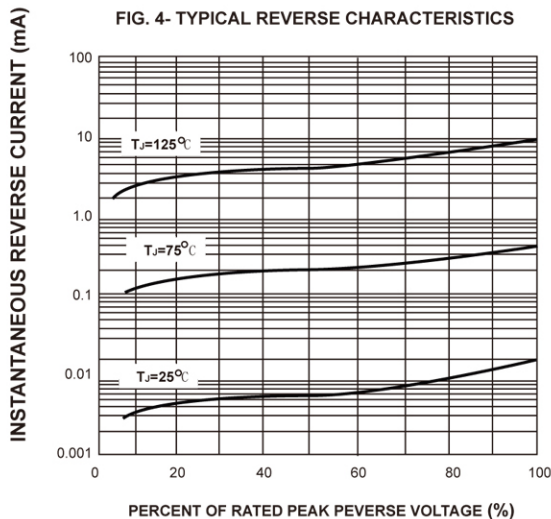


FIG. 5- TYPICAL JUNCTION CAPACITANCE

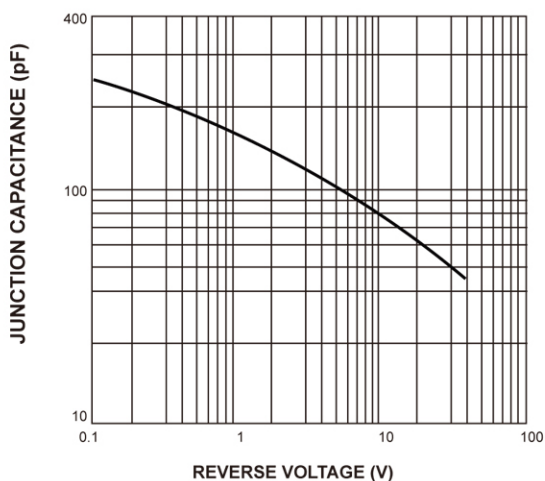


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

