

## ● FEATURES

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

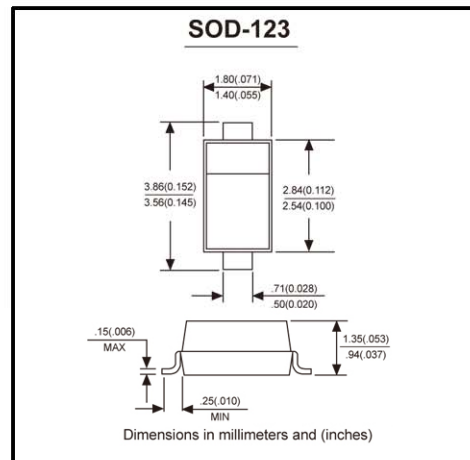
## ● MECHANICAL DATA

**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 @ $T_A=25^\circ\text{C}$

PARAMETER	SYMBOLS	B5817W	B5818W	B5819W	UNITS
Peak repetitive peak reverse voltage	$V_{RRM}$				
Working peak reverse voltage	$V_{RWM}$	20	30	40	V
DC Blocking 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 @ $t=8.3\text{ms}$	$I_{FSM}$		20		A
Power dissipation	$P_d$		250		mW
Thermal resistance junction to ambient	$R_{\theta JA}$		500		K/W
Storage temperature	$T_{STG}$		-65 to +150		$^\circ\text{C}$
Non-Repetitive peak reverse voltage	$V_{RM}$	20	30	40	V

## Electrical ratings @ $T_A=25^\circ\text{C}$

PARAMETER	SYMBOLS	Min.	Max.	Unit	Test conditions
Reverse breakdown voltage	$V_{(BR)}$	20		V	$I_R=1\text{mA}$ B5817W B5818W B5819W
		30		V	
		40		V	
Reverse voltage leakage current	$I_R$		1	mA	$V_R=20\text{V}$ B5817W
					$V_R=30\text{V}$ B5818W
					$V_R=40\text{V}$ B5819W
Forward voltage	$V_F$		0.45	V	$I_F=1\text{A}$ $I_F=3\text{A}$ B5817W B5818W B5819W
			0.75		
			0.55	V	
			0.875		
Diode capacitance	$C_D$		0.6	V	$V_R=4\text{V}, f=1.0\text{MHz}$
			0.9		



FIG. 1- FORWARD CURRENT DERATING CURVE

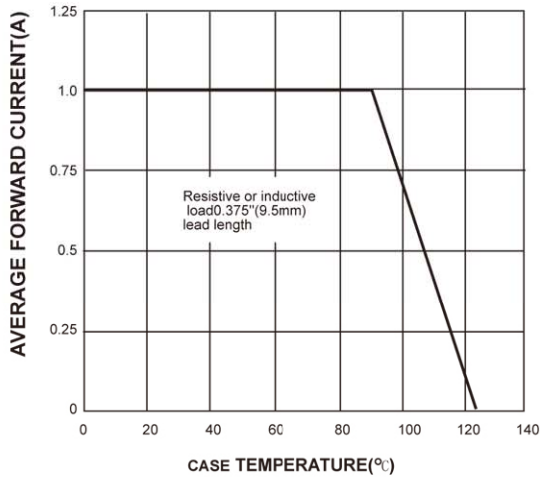


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

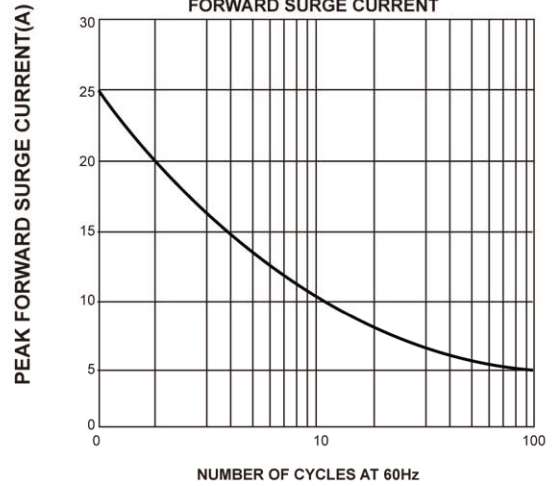


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

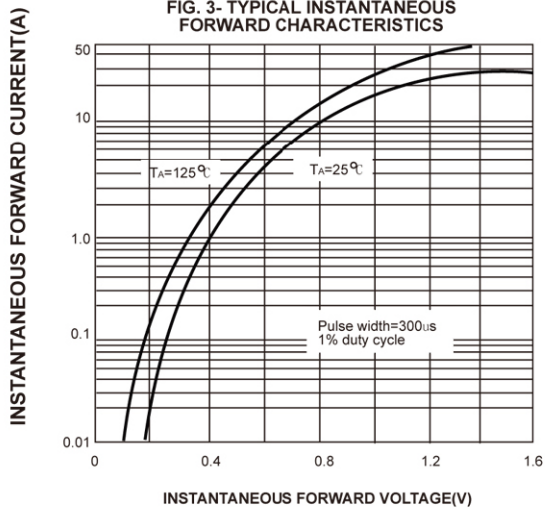


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

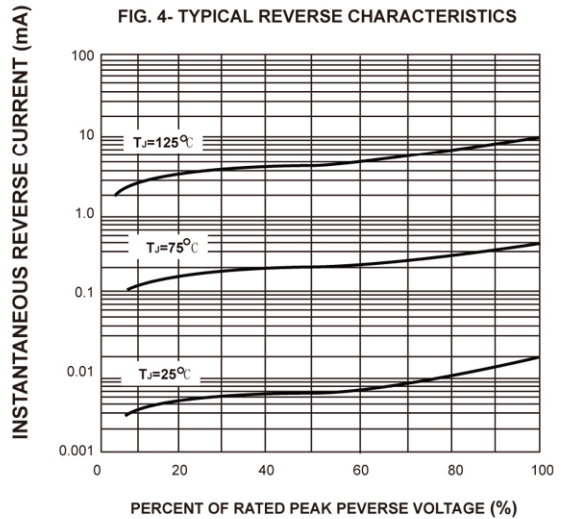


FIG. 5- TYPICAL JUNCTION CAPACITANCE

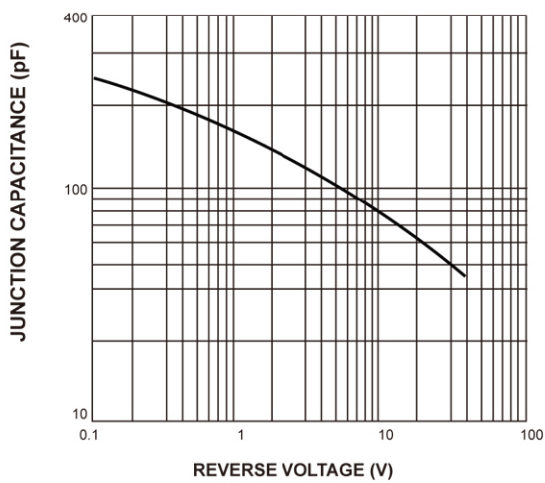
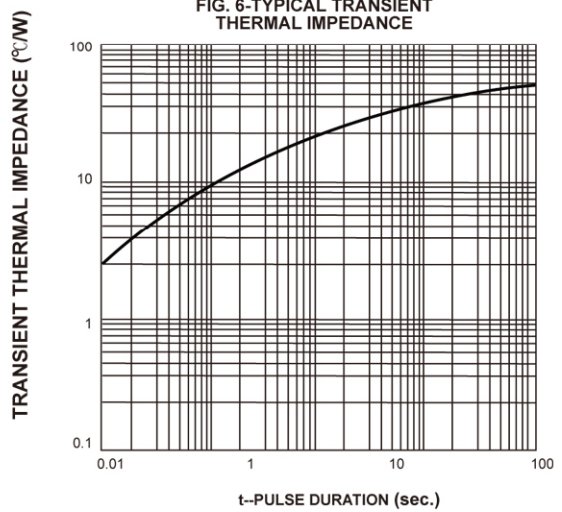


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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