

● FEATURES

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

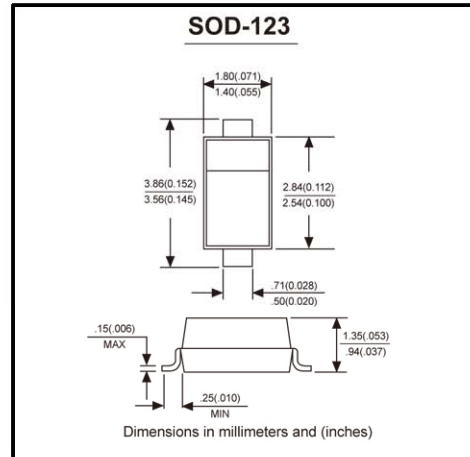
● MECHANICAL DATA

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°C

PARAMETER	SYMBOLS	B5817W	B5818W	B5819W	UNITS
Peak repetitive peak reverse voltage	V _{RRM}				V
Working peak reverse voltage	V _{RWM}	20	30	40	V
DC Blocking voltage	V _R				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}		20		A
Power dissipation	P _d		250		mW
Thermal resistance junction to ambient	R _{θJA}		500		K/W
Storage temperature	T _{STG}		-65 to +150		°C
Non-Repetitive peak reverse voltage	V _{RM}	20	30	40	V

Electrical ratings @T_A=25°C

PARAMETER	SYMBOLS	Min.	Max.	Unit	Test conditions	
Reverse breakdown voltage	V _(BR)	20		V	I _R =1mA	B5817W
		30		V		B5818W
		40		V		B5819W
Reverse voltage leakage current	I _R		1	mA	V _R =20V	B5817W
					V _R =30V	B5818W
					V _R =40V	B5819W
Forward voltage	V _F		0.45	V	I _F =1A I _F =3A	B5817W
			0.75	V		
			0.55	V		B5818W
			0.875	V		
Diode capacitance	C _D		0.6	V	V _R =4V, f=1.0MHz	B5819W
			0.9	V		



FIG. 1- FORWARD CURRENT DERATING CURVE

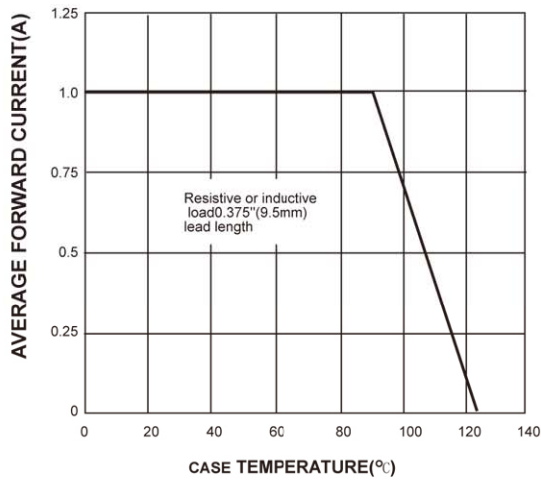


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

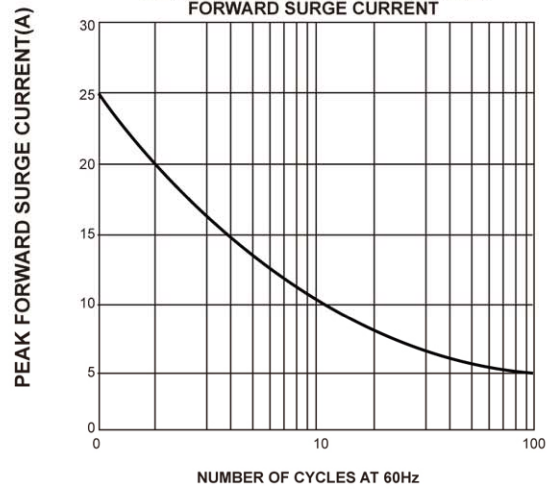


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

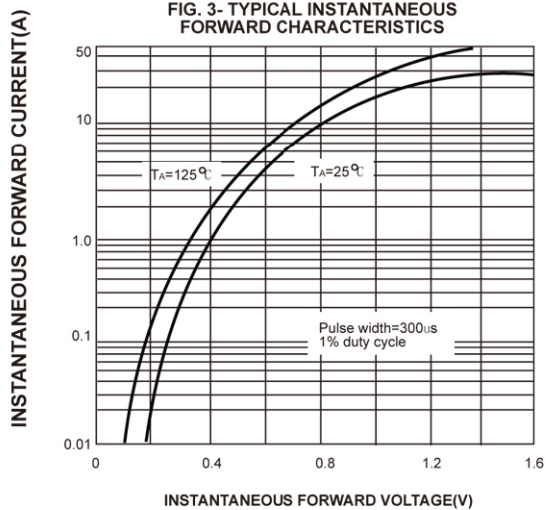


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

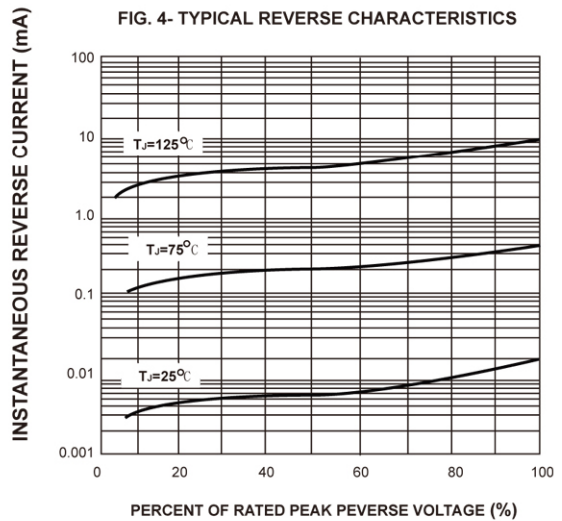


FIG. 5- TYPICAL JUNCTION CAPACITANCE

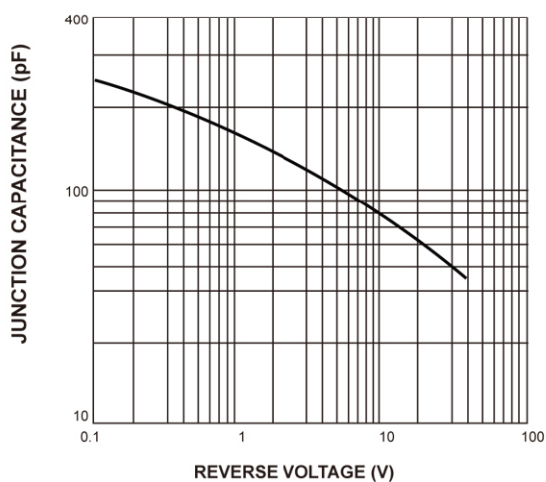


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

