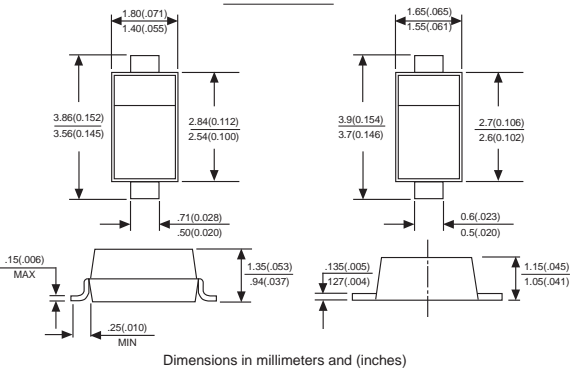




B5817W THRU B5819W

SCHOTTKY DIODE

SOD-123



Dimensions in millimeters and (inches)

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}				
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 @=8.3ms	I _{FSM}		9		A
Repetitive peak forward current	I _{FRM}		1.5		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				B5818W
			0.55				
		0.875				B5819W	
		0.6					
		0.9					
Diode capacitance	C _D		120	pF	V _R =4V, f=1.0MHz		

RATINGS AND CHARACTERISTIC CURVES B5817W THRU B5819W

FIG. 1- FORWARD CURRENT DERATING CURVE

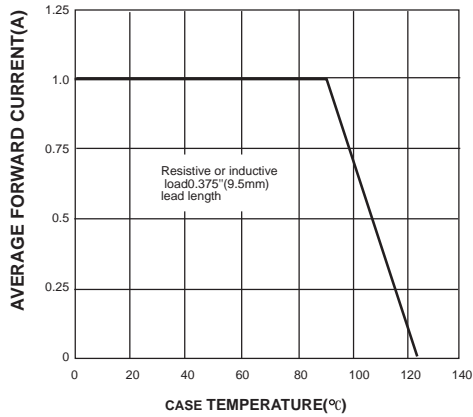


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

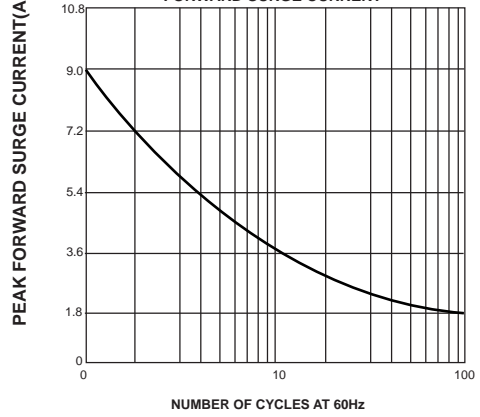


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

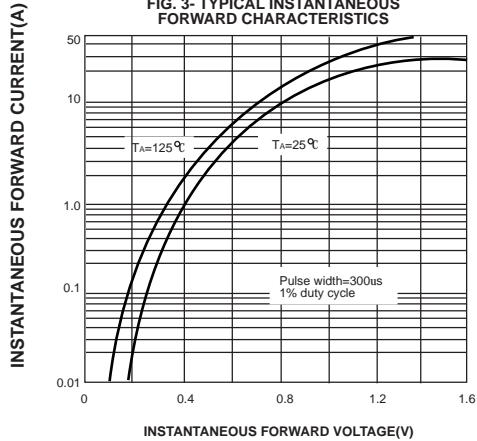


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

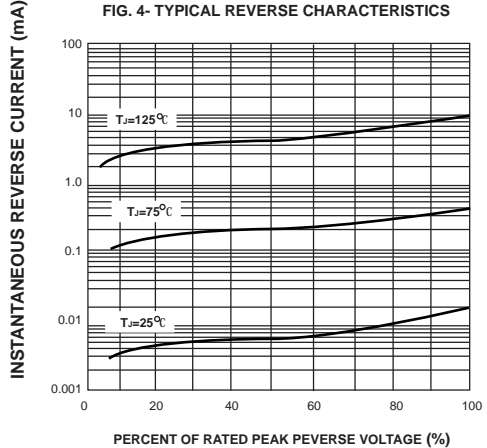


FIG. 5- TYPICAL JUNCTION CAPACITANCE

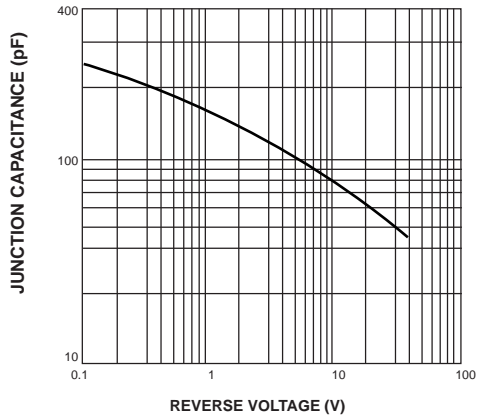


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

