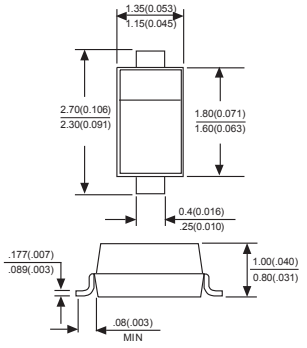
GAIA TECH

B5817WS THRU B5819WS

SCHOTTKY BARRIER DIODE

SOD-323



Dimensions in millimeters and (inches)

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℃

PARAMETER	SYMBOLS	B5817WS	B5818WS	B5819WS	UNITS
Peak repetitive peak reverse voltage Working peak DC Blocking 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	Io	1			A
Peak forward surge current @=8.3ms	I_{FSM}	25			A
Repetitive peak forward current	I_{FRM}	625			mA
Power dissipation	Pd	200			mW
Thermal resistance junction to ambient	$R_{\Theta JA}$	625			K/W
Storage temperature	T_{STG}	-65 to +150			℃
Non-Repetitive peak reverse voltage	V_{RM}	20	30	40	V

Electrical ratings @T_A=25℃

PARAMETER	SYMBOLS	Min.	Max.	Unit	Test conditions	
Reverse breakdown voltage	$V_{(BR)}$	20 30 40		V V V	I_R=1mA	B5817WS B5818WS B5819WS
Reverse voltage leakage current	I_R		1	mA	V_R=20V	B5817WS
					V_R=30V	B5818WS
					V_R=40V	B5819WS
Forward voltage	V_F		0.45 0.75	V	I_F=1A I_F=3A	B5817WS
			0.55 0.875	V		B5818WS
			0.6 0.9	V		B5819WS
Diode capacitance	C_D		120	pF	V_R=4V,f=1.0MHz	

FIG. 1- FORWARD CURRENT DERATING CURVE

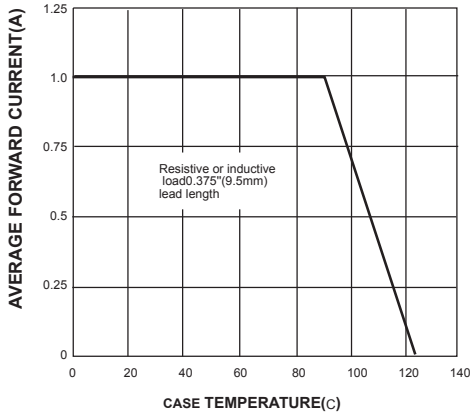


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

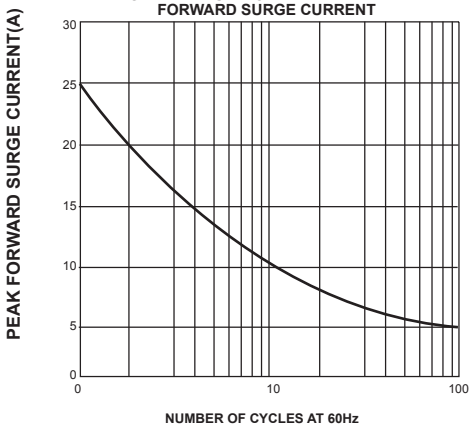


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

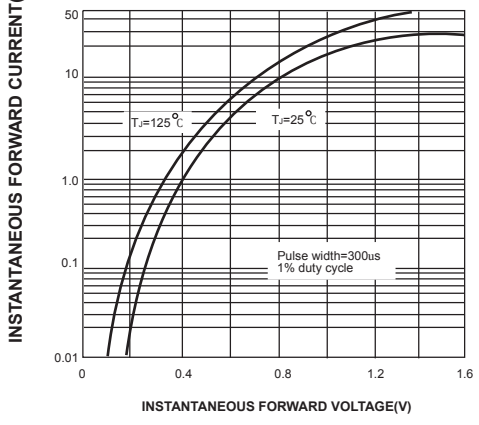


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

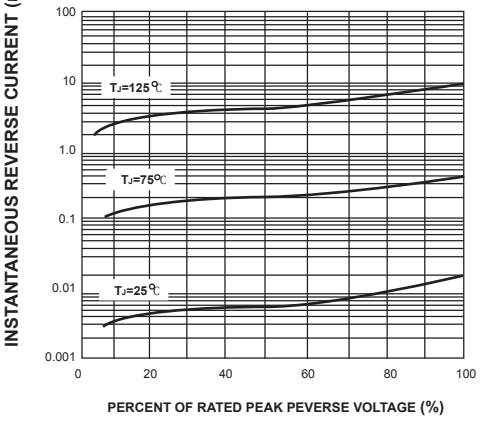


FIG. 5- TYPICAL JUNCTION CAPACITANCE

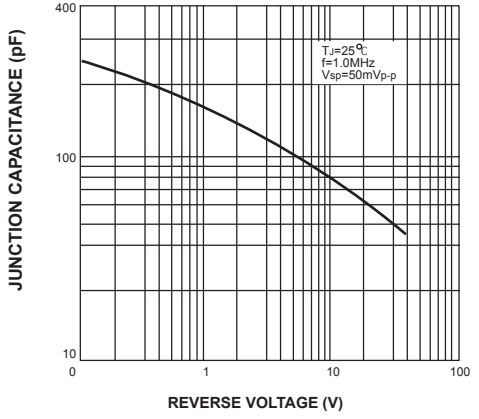


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE