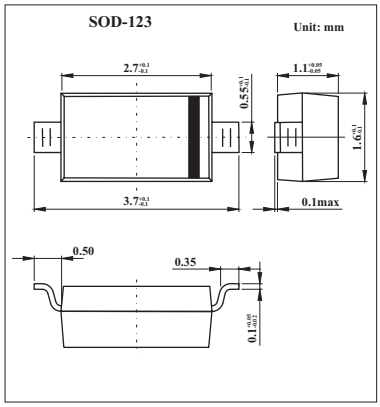
TY Semicondutor®

Product specification

1N5817W-1N5819W



■ Features

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

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	1N5817W	1N5818W	1N5819W	Unit
Non-Repetitive Peak reverse voltage	V_{RM}	20	30	40	V
Peak repetitive Peak reverse voltage Working Peak Reverse Voltage 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	I_O	1			A
Peak forward surge current @=8.3ms	I_{FSM}	25			A
Repetitive Peak Forward Current	I_{FRM}	625			mA
Power Dissipation	P_d	250			mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500			K/W
Storage temperature	T_{STG}	-65 to 150			℃

■ Electrical Characteristics Ta = 25℃

Parameter		Symbol	Testconditons	Min	Typ	Max	Unit
Reverse breakdown voltage	1N5817W 1N5818W 1N5819W	$V_{(BR)}$	I_R= 1mA	20 30 40			V
Reverse voltage leakage current	1N5817W 1N5818W 1N5819W	I_R	V_R=20V V_R=30V V_R=40V			1	mA
Forward voltage	1N5817W	V_F	I_F=1A I_F=3A			0.45 0.75	V
	1N5818W		I_F=1A I_F=3A			0.55 0.875	V
	1N5819W		I_F=1A I_F=3A			0.6 0.9	V
Diode capacitance		C_D	V_R=4V, f=1MHz			120	pF

■ Marking

NO.	1N5817W	1N5818W	1N5819W
Marking	SJ	SK	SL

■ Typical Characteristics

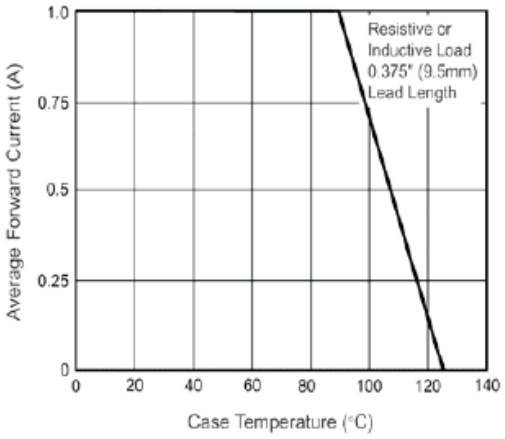


Fig.1 Forward Current Derating Curve

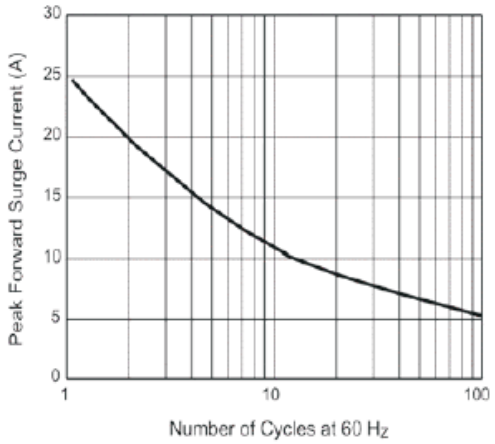


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

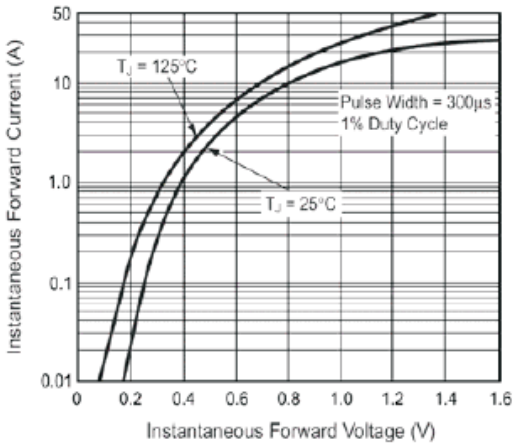


Fig.3 Typical Instantaneous Forward Characteristics

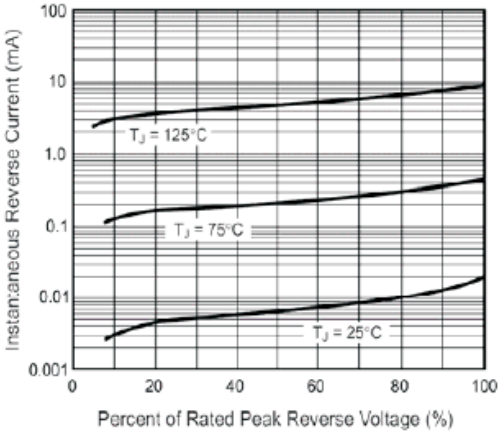


Fig.4 Typical Reverse Characteristics

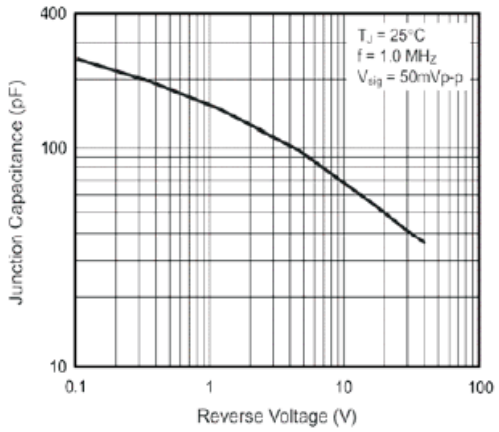


Fig.5 Typical Junction Capacitance

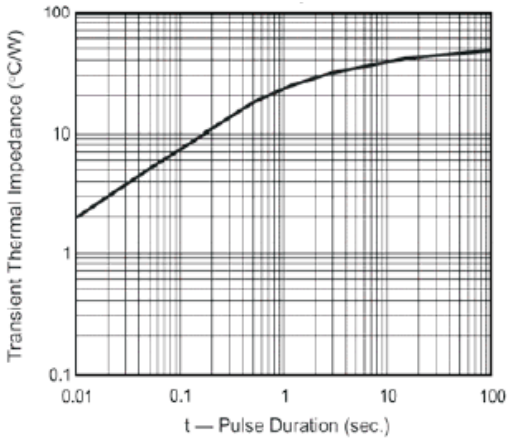


Fig.6 Typical Transient Thermal Impedance