SHENZHEN TUOFENG SEMICONDUCTOR TECHNOLOGY CO.,LTD

SCHOTTKY BARRIER RECTIFIER

1N5817---1N5819

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE:20---40V
CURRENT:1.0A

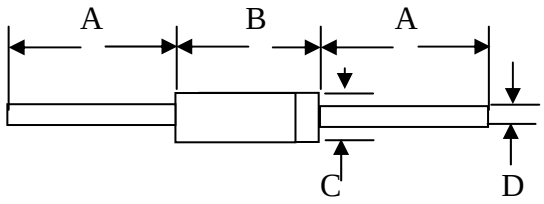
FEATURES

- ◇ Metal-Semiconductor junction with guard ring
- ◇ Epitaxial construction
- ◇ Low forward voltage drop,low switching losses
- ◇ High surge capability
- ◇ For use in low voltage,high frequency in verters free wheeling,and polarity prote ction applications
- ◇ The plastic material carries U/L recognition 94V-O

MECHANICAL DATA

- ◇ Case:DO-41 Molded plastic.
- ◇ Lead:Axial lead solderable per MIL-STD-202,method 208 guaranteed.
- ◇ Ploarity:Color band denotes cathode end
- ◇ Aprox weight:0.012 ounces,0.34 grams.

DO-41



Dim	Min	Max
A	24	27
B	4.2	5.2
C	2.0	2.8
D	0.50	0.65
All Dinenslons in mm		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase,half wave,60Hz,resistive or inductive load.For capacitive load,derate by 20%.

		1N5817	1N5818	1N5819	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	V
Maximum RMS voltage	V_{RMS}	14	21	28	V
Maximum DC blocking voltage	V_{DC}	20	30	40	V
Maximum average forward rectified current 9.5mm lead length,@ T_A=75℃	$I_{F(AV)}$	1.0			A
Peak forward surge current 8.3ms single half-sine -w ae superimposed on rated load,@ T_J=70℃	I_{FSM}	25.0			A
Maximum instantaneous forward voltage@1.0A	V_F	0.45	0. 55	0.60	V
Maximum reverse current @ T_A=25℃ At rated DC blocking voltage @ T_A=100℃	I_R	1.0 10.0			mA
Typical junction capacitance (Note2)	C_J	110			pF
Typical thermal resistance (Note3)	$R\theta_{JA}$	50			℃/W
Operating junction temperature range	T_J	-55---+125			℃
Storage temperature range	T_{STG}	-55---+150			℃

NOTES:(1)Pulse test:300us pulse with,1% duty cycle.
(2)Measured at 1.0MHZ and applied reverse voltage of 4.0V DC.
(3)Thermal resistence junction to ambien.

FIG.1 – FORWARD DERATING CURVE

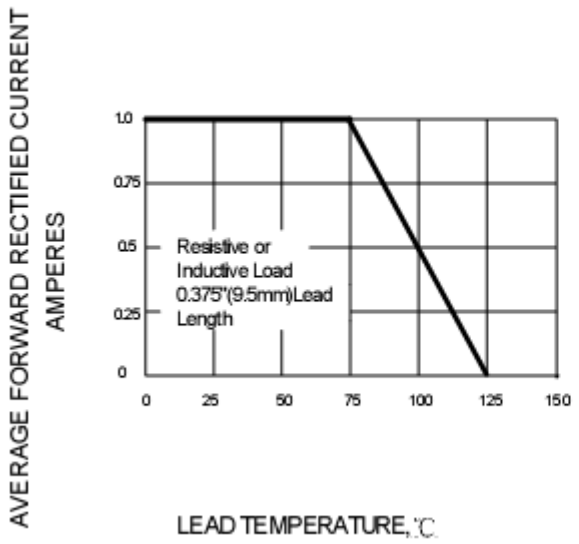


FIG.2 -- PEAK FORWARD SURGE CURRENT

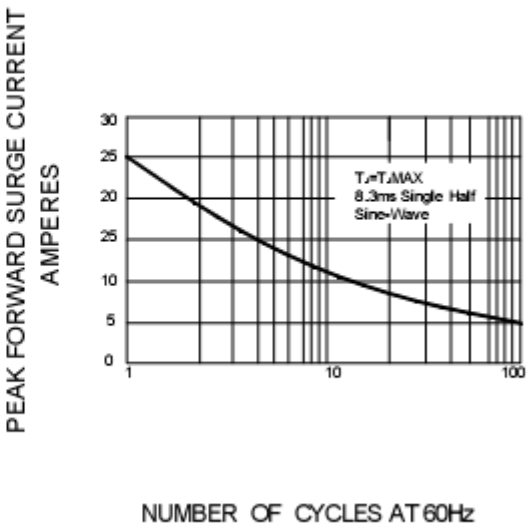


FIG.3 -- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

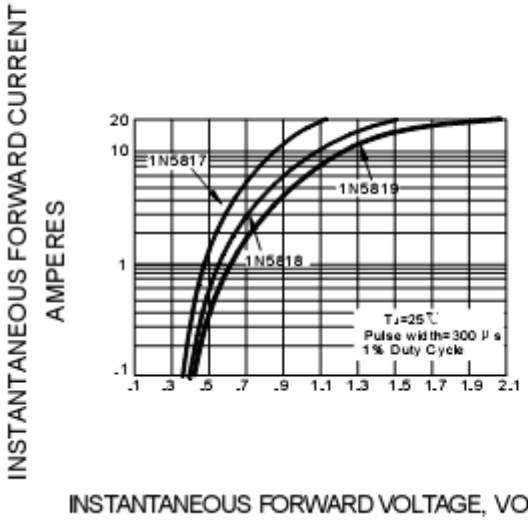


FIG.4 -- TYPICAL JUNCTION CAPACITANCE