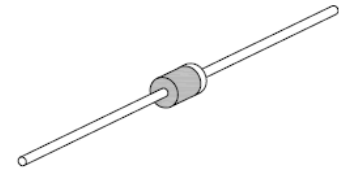


1A Schottky Barrier Rectifiers

Features

- Guardring for overvoltage protection
- Metal to silicon junction, majority carrier conduction
- Very small conduction losses
- Extremely fast switching
- High current capability, low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters
- Solder dip 260 ° C, 10 seconds
- RoHS Compliance



**DO-41
(DO-204AL)**



Mechanical Data

Case:	JEDEC DO-204AL(DO-41) molded plastic body
Epoxy:	Plastic package has UL flammability classification 94V-0
Terminals:	Pure tin plated leads, solderable per J-STD-002B and JESD22-B102D
Polarity:	Color band denotes cathode end
Weight:	0.012 ounces, 0.3 gram

Maximum Ratings and Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless noted otherwise)

Symbol	Description	1N5817	1N5818	1N5819	Unit	Conditions
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	20	30	40	V	
V_{RMS}	Maximum RMS Voltage	14	21	28	V	
V_{DC}	Maximum DC Blocking Voltage	20	30	40	V	
V_{RSM}	Maximum Non-repetitive Peak Reverse Voltage	24	36	48	V	
I_{F(AV)}	Maximum Average Forward Rectified Current	1.0			A	0.375" (9.5mm) lead length at T _L =90° C

1A Schottky Barrier Rectifiers

1N5817 -1N5819

Symbol	Description	1N5817	1N5818	1N5819	Unit	Conditions
I_{FSM}	Peak Forward Surge Current	25			A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
V_F	Maximum Instantaneous Forward Voltage (Note 1)	0.45	0.55	0.60	V	I _F =1.0A
I_R	Maximum DC Reverse Current at Rated DC Blocking Voltage	0.5			mA	T _A =25° C
		10				T _A =100° C
C_J	Typical Junction Capacitance	125	110		pF	V _R =4V, f=1MHz
R_{thJA}	Typical Thermal Resistance	50			°C / W	Note 2
R_{thJL}		15				
T_J, T_{STG}	Operating Junction and Storage Temperature Range	-65 to +125			° C	

Note: (1) Pulse test: 300μS pulse width, 1% duty cycle.
(2) Thermal resistance from junction to lead vertical P.C.B mounted, 0.375" (9.5mm) lead length with 1.5 x 1.5" (38 x 38mm) copper pads.

Typical Characteristics Curves

Fig.1-Forward Current Derating Curve

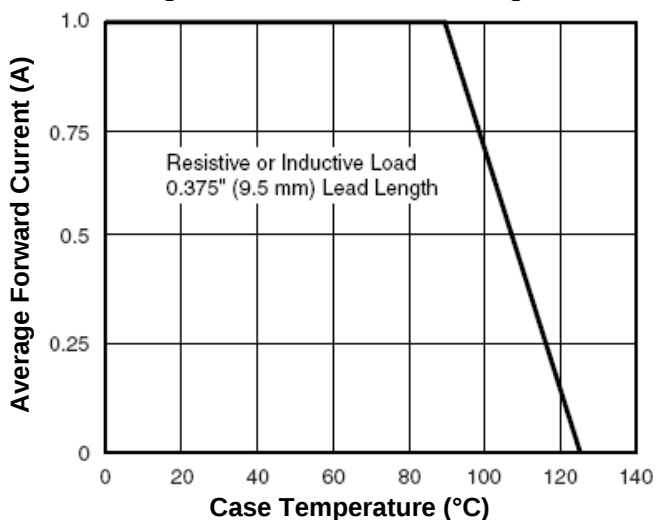
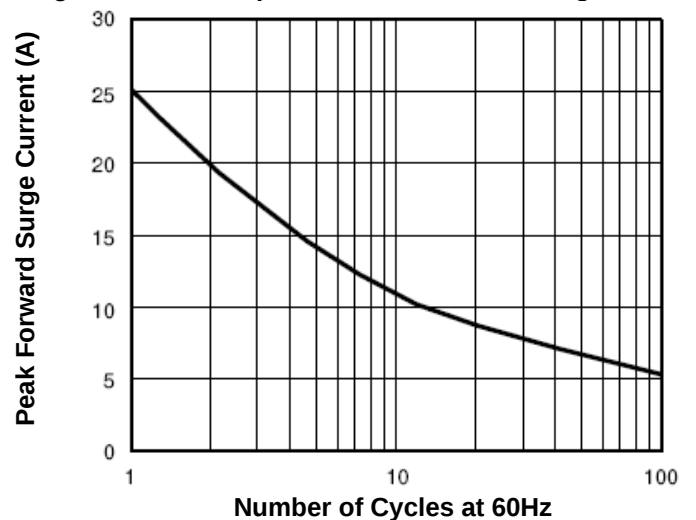


Fig.2-Max. Non-Repetitive Peak Forward Surge Current



1A Schottky Barrier Rectifiers

1N5817 -1N5819

Fig.3- Typical Instantaneous Forward Characteristics

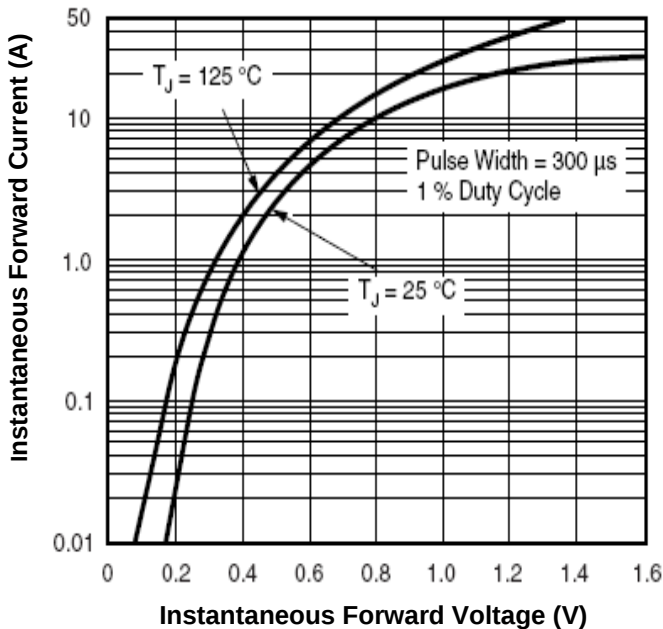


Fig.4-Typical Reverse Characteristics

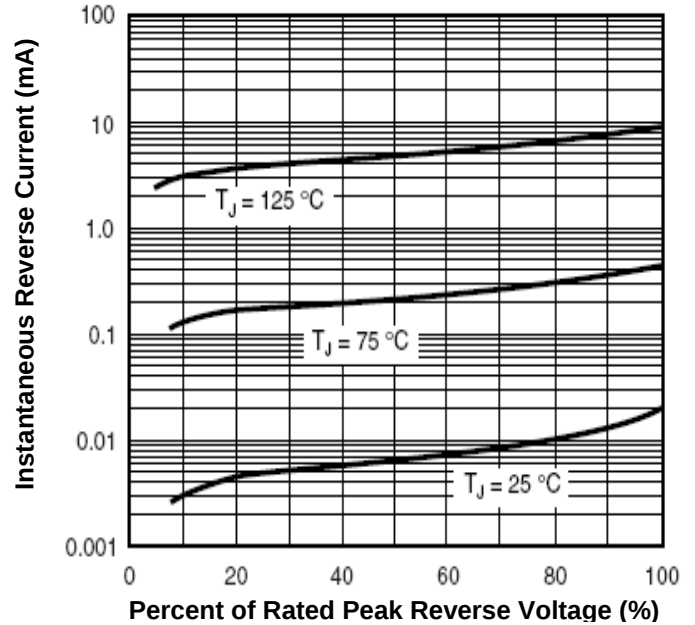


Fig.5- Typical Junction Capacitance

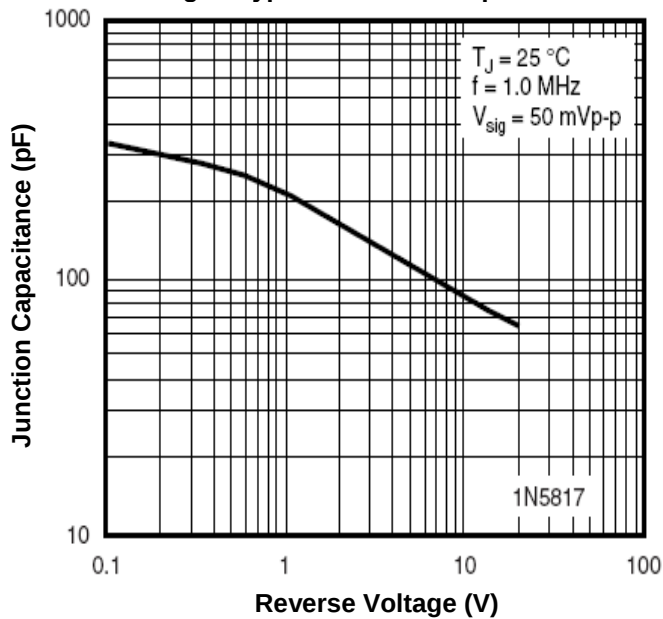
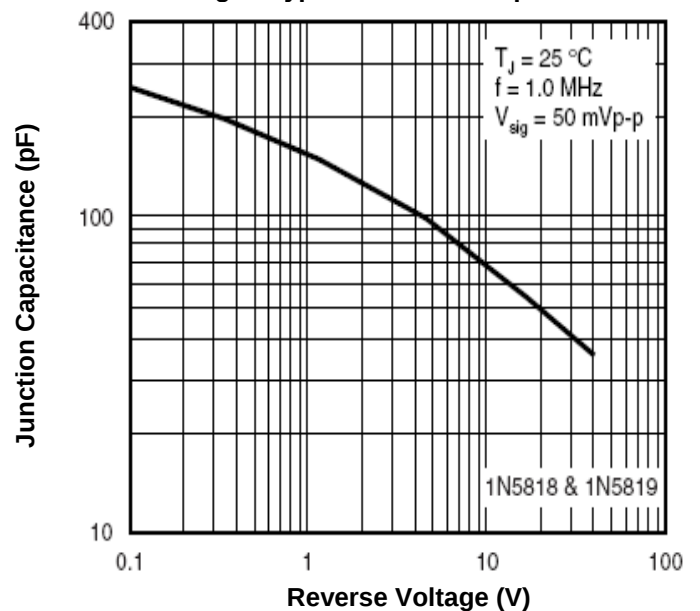


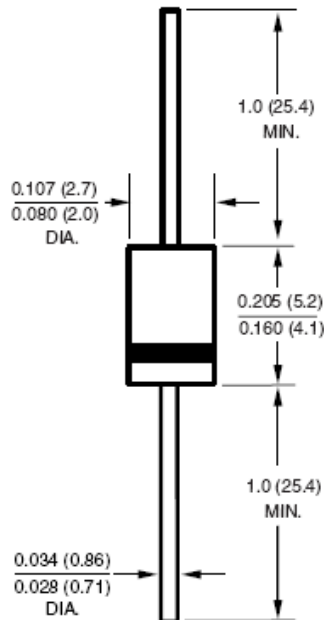
Fig.6- Typical Junction Capacitance



1A Schottky Barrier Rectifiers

1N5817 -1N5819

Dimensions in inches (mm)



DO-41
(DO-204AL)

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