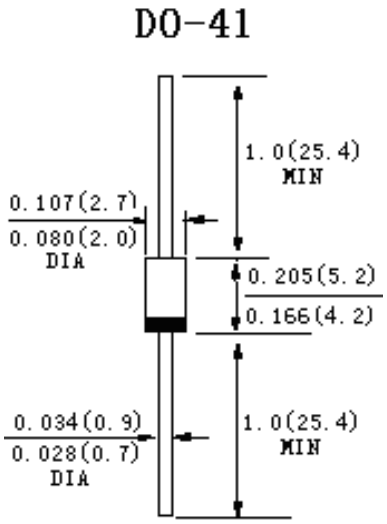
1.0Amp Schottky Barrier Rectifiers

1N5817 THRU1N5819

Features

- Low power loss, high efficiency
- High current capability, Low VF
- High reliability
- High surge current capability
- Epitaxial construction
- Guard-ring for transient protection
- For use in low voltage, high frequency inventor, free wheeling, and polarity protection application



Dimensions in inches and (millimeters)

Mechanical Data

Cases: DO-41,Molded plastic
Polarity: Color band denotes cathode
High temperature soldering guaranteed:
260℃/10 seconds/.375",(9.5mm) lead lengths at 5 lbs., (2.3kg) tension

Maximum Ratings and Electrical Characteristics

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

TYPE NUMBER		Symbols	Units	1N5817	1N5818	1N5819
Maximum repetitive peak reverse voltage		V_{RRM}	V	20	30	40
Maximum RMS voltage		V_{RMS}	V	14	21	28
Maximum DC blocking voltage		V_{DC}	V	20	30	40
Maximum Average Forward Rectified Current at Derating Lead Temperature		$I_{F(AV)}$	A	1.0		
Peak Forward Surge Current,8.3ms single half-wave superimposed on rated load(JEDEC method)		I_{FSM}	A	25		
Maximum Instantaneous Forward Voltage @1.0A		VF	V	0.45	0.55	0.6
Maximum DC reverse current at rated DC blocking voltage	Ta=25℃	I_{R1}	mA	0.5		
	Ta=100℃	I_{R2}	mA	10		
Operating Junction Temperature Range		T_J	℃	-55to+150		
Storage Temperature Range		T_{stg}	℃	-55to+150		

Characteristic Curves

Fig. 1 – Forward Current Derating Curve

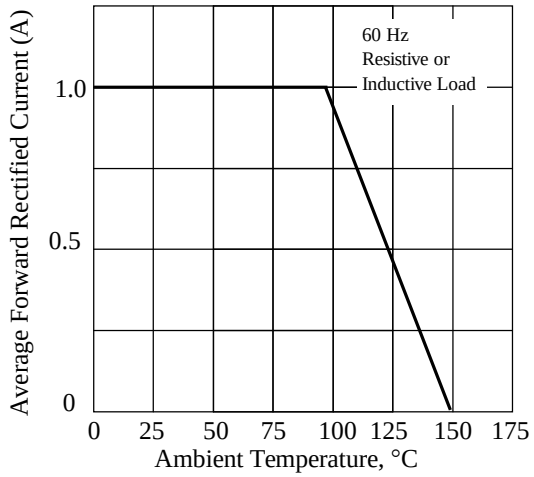


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

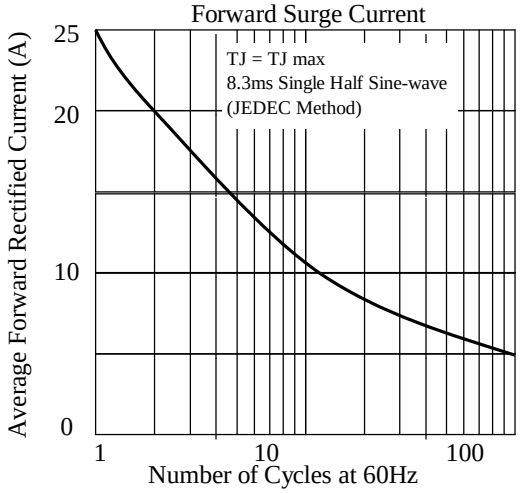


Fig 3. – Typical Instantaneous Forward Characteristics

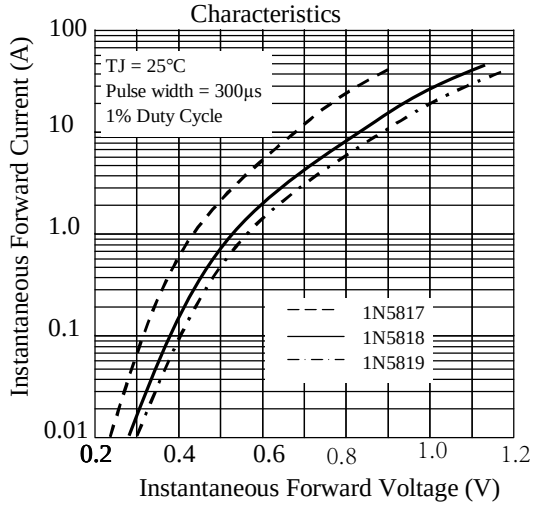


Fig 4. – Typical Reverse Characteristics

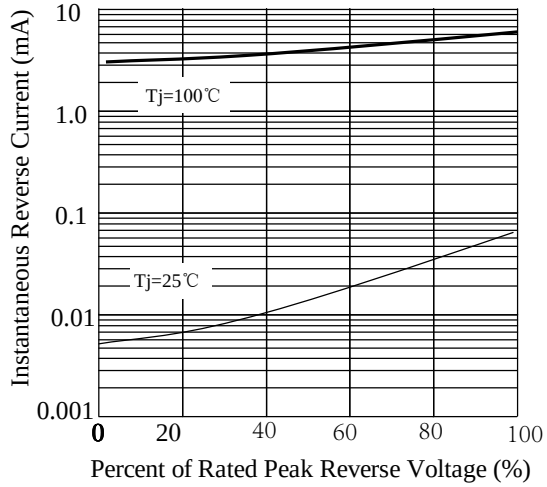


Fig 5. – Typical Junction Capacitance