

## SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - 20 to 40 Volts  
FORWARD CURRENT - 1.0 Amperes

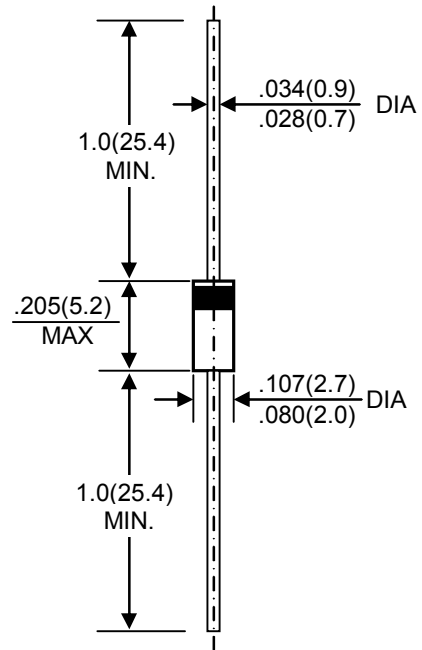
### FEATURES

- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

### MECHANICAL DATA

- Case: JEDEC DO-41 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.012 ounces , 0.34 grams
- Mounting position: Any

### DO-41



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	1N5817	1N5818	1N5819	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	V
Maximum Average Forward Rectified Current @T <sub>A</sub> =75°C	I <sub>(AV)</sub>	1.0			A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I <sub>FSM</sub>	40			A
Maximum Forward Voltage at 1.0A DC	V <sub>F</sub>	0.450	0.550	0.600	V
Maximum Forward Voltage at 3.0A DC	V <sub>F</sub>	0.750	0.875	0.900	V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T <sub>J</sub> =25°C @T <sub>J</sub> =100°C	I <sub>R</sub>	1.0 10			mA
Typical Junction Capacitance (Note1)	C <sub>J</sub>	110			pF
Typical Thermal Resistance (Note2)	R <sub>θJA</sub>	80			°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150			°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150			°C

NOTES: 1.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

2.Thermal resistance junction to ambient,

FIG. 1 – FORWARD CURRENT DERATING CURVE

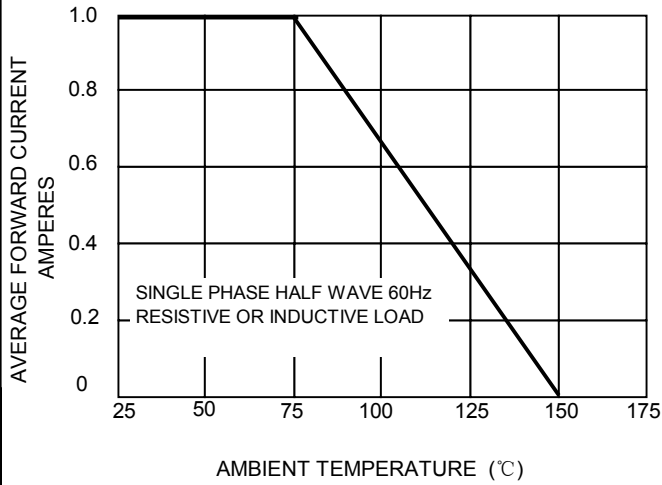


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

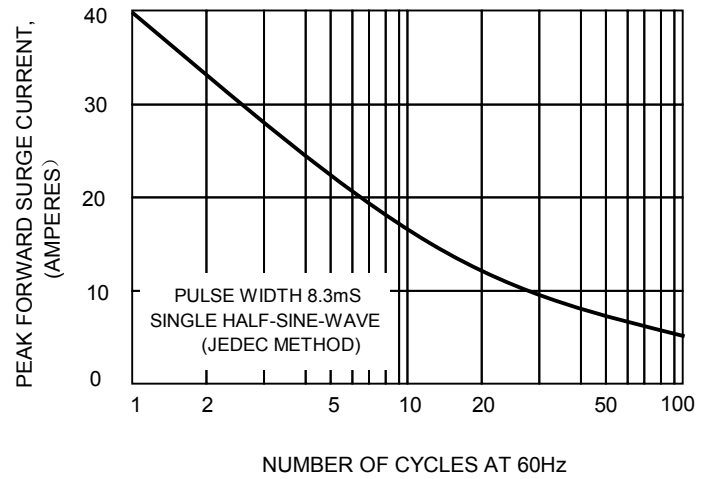


FIG.3 – TYPICAL JUNCTION CAPACITANCE

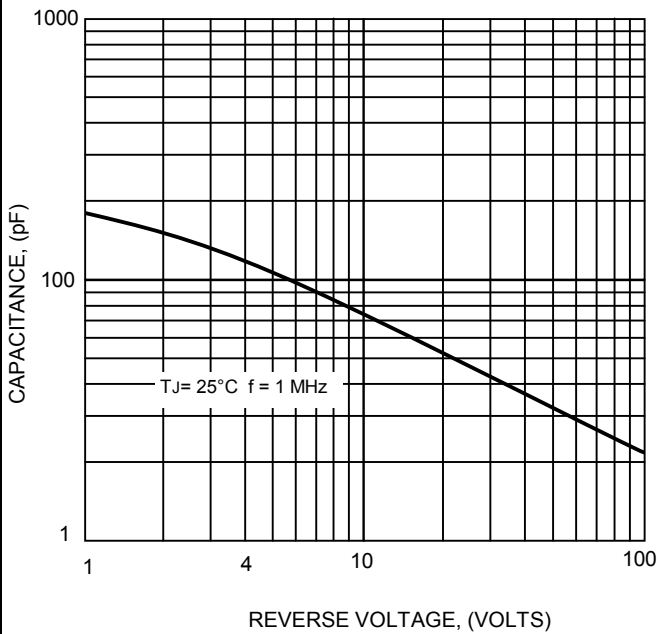


FIG.4-TYPICAL FORWARD CHARACTERISTICS

