

1N5820 THRU 1N5822

## TECHNICAL SPECIFICATIONS OF SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE - 20 to 40 Volts

CURRENT - 3.0 Amperes

### FEATURES

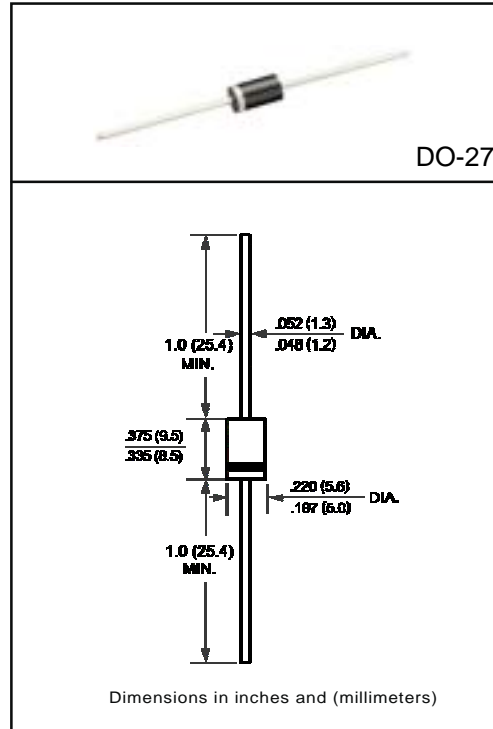
- \* Low switching noise
- \* Low Forward voltage drop
- \* High current capability
- \* High switching capability
- \* High surge capability
- \* High reliability

### MECHANICAL DATE

- \* Case : Molded plastic
- \* Epoxy : UL 94V-0 rate flame retardant
- \* Lead : MIL-STD-202E, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 1.18 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



	SYMBOL	SM5817	SM5818	SM5819	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	20	30	40	Volts
Maximum RMS Voltage	VRMS	14	21	28	Volts
Maximum DC Blocking Voltage	VDC	20	30	40	Volts
Maximum Average Forward Rectified Current .375*(9.5mm) lead length at T <sub>L</sub> = 95°C	I <sub>O</sub>	3.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	80			Amps
Maximum Instantaneous Forward Voltage at 3.0A DC (Note 1)	V <sub>F</sub>	.475	.500	.525	Volts
Maximum Instantaneous Forward Voltage at 9.4A DC (Note 1)	V <sub>F</sub>	.850	.900	.950	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage (Note 1)	I <sub>R</sub>	2.0			mAmps
		20			
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	28			°C / W
Typical Thermal Resistance (Note 3)	C <sub>J</sub>	250			pF
Storage Operating Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-65 to +125			°C

- NOTES : 1. Measured at Pulse Width 300 uS, Duty 2%.  
2. Thermal Resistance (Junction to Ambient) : Vertical PC Board Mounting, 5.0" (12.7mm) Lead Length.  
3. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

# RATING AND CHARACTERISTIC CURVES (1N5820 THRU 1N5822)

