



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

1N5817
THRU
1N5819

TECHNICAL SPECIFICATIONS OF SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE - 20 to 40 Volts

CURRENT - 1.0 Ampere

FEATURES

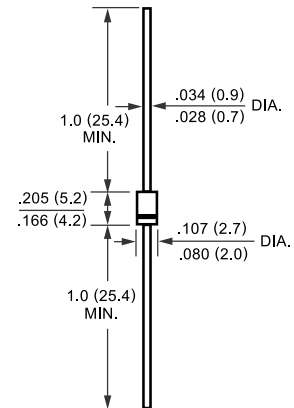
- * Low switching noise
- * Low forward voltage drop
- * High current capability
- * High switching capability
- * High reliability
- * High surge capability

MECHANICAL DATA

- * 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: 0.33 gram

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	1N5817	1N5818	1N5819	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	Volts
Maximum RMS Voltage	V _{RMS}	14	21	28	Volts
Maximum DC Blocking Voltage	V _{DC}	20	30	40	Volts
Maximum Average Forward Rectified Current .375*(9.5mm) lead length at T _L = 90°C	I _O	1.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	25			Amps
Maximum Instantaneous Forward Voltage at 1.0A DC	V _F	.45	.55	.60	Volts
Maximum Forward Voltage at 3.1A DC	V _F	.75	.875	.90	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	1.0			mAmps
		10			
Typical Thermal Resistance (Note1)	R _{θJA}	80			°C/W
Typical Junction Capacitance (Note 2)	C _J	110			pF
Storage and Operating Temperature Range	T _J , T _{STG}	-65 to +125			°C

NOTES : 1. Thermal Resistance (Junction to Ambient): Vertical PC Board Mounting, 0.375*(9.5mm) Lead Length.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES (1N5817 THRU 1N5819)

FIG. 1 -- TYPICAL FORWARD CURRENT DERATING CURVE

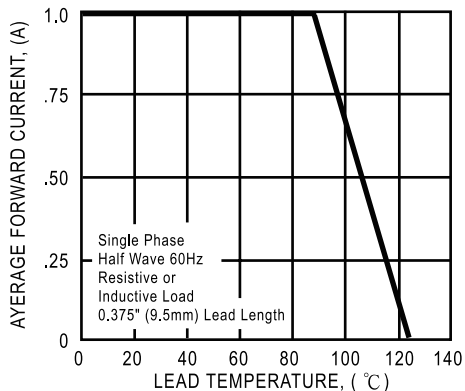


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

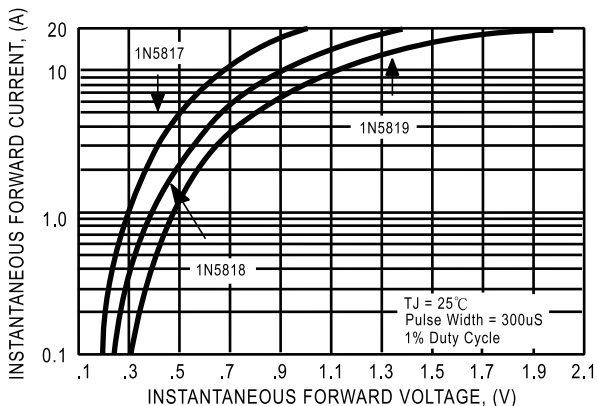


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

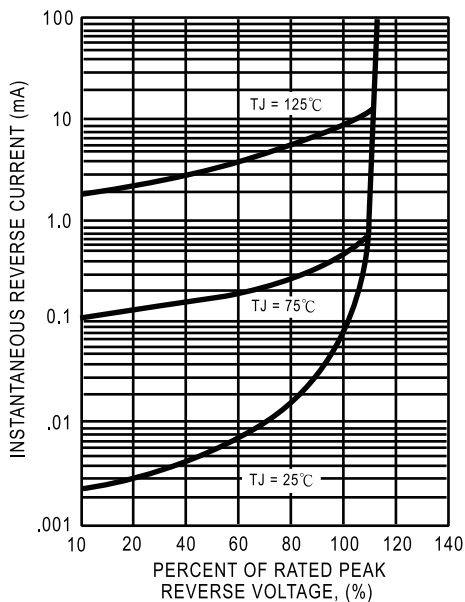


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

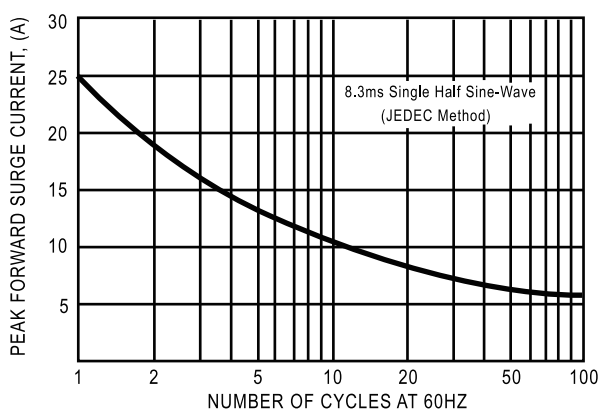
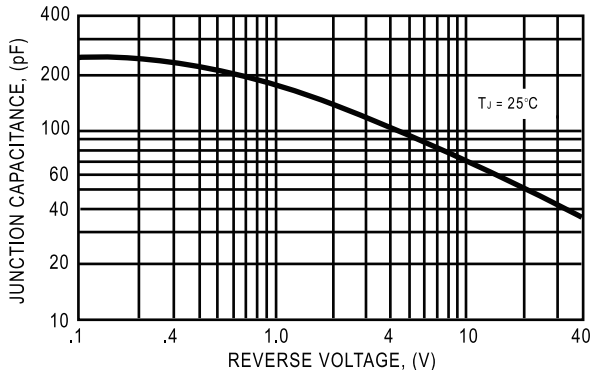


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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