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*

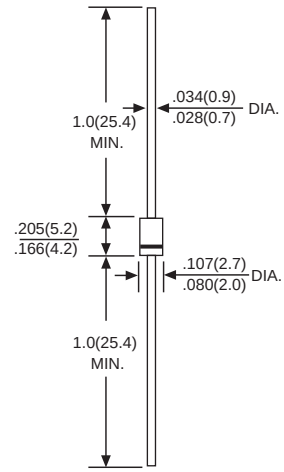
FEATURES

* Low switching noise
* Low forward voltage
* High current capability
* High speed switching
* High surge capability
* High relibility

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

DO-41



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, 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		I_O	1.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	30			Amps
Maximum Instantaneous Forward Voltage at 1.0A DC		V_F	.45	.55	.60	Volts
Maximum Forward Voltage at 3.0A DC		V_F	.75	.875	.90	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T_A = 25°C	I_R	1.0			mAmps
	@T_A = 100°C		5.0			
Typical Thermal Resistance (Note 1)		$R_{\theta JA}$	50			°C/W
Typical Junction Capacitance (Note 2)		C_J	110			pF
Storage and Operating Temperature Range		T_J, T_{STG}	-55 to +150			°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

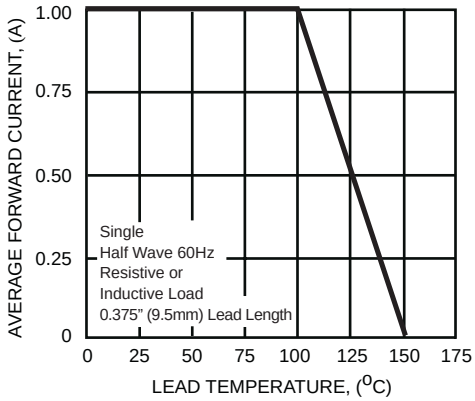


FIG. 2
TYPICAL INSTANTANEOUS FORWARD
CHARACTERISTICS

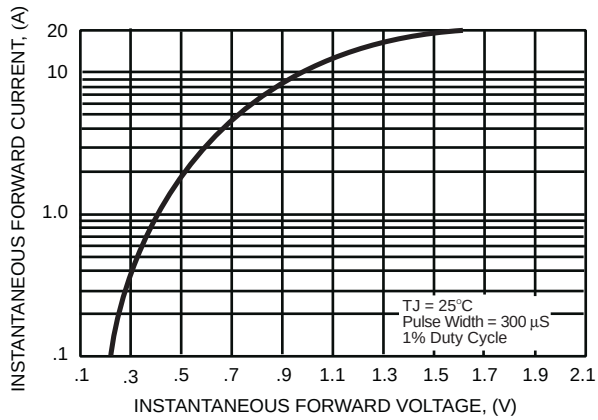


FIG. 3
TYPICAL REVERSE CHARACTERISTICS

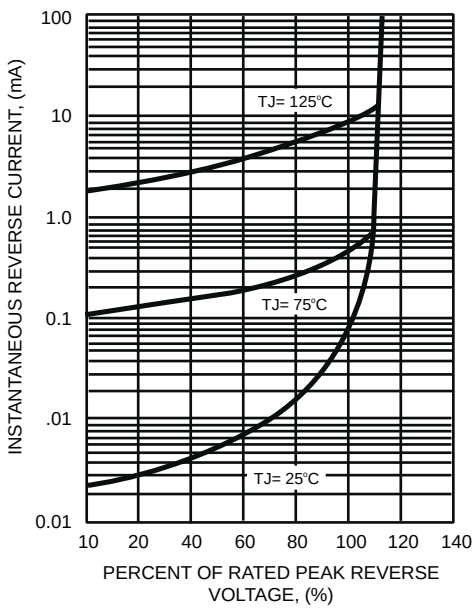


FIG. 4
MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

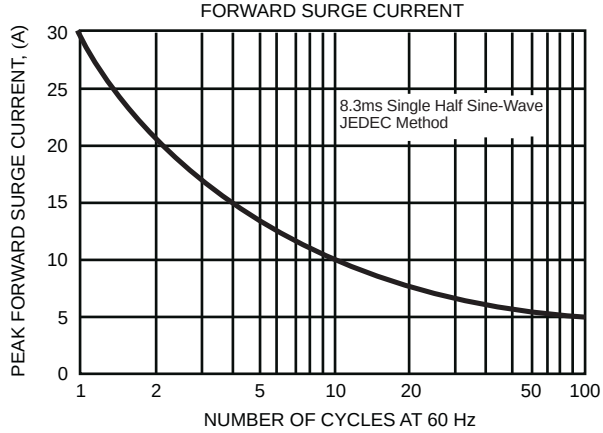
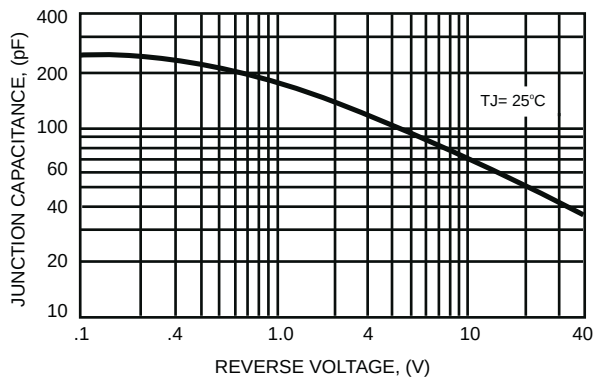


FIG. 5
TYPICAL JUNCTION CAPACITANCE



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