JGD

1N5817THRU 1N5819

1.0 AMP. SCHOTTKY BARRIER RECTIFIERS

VOLTAGE RANGE
20 to 40 Volts
CURRENT
1.0 Ampere

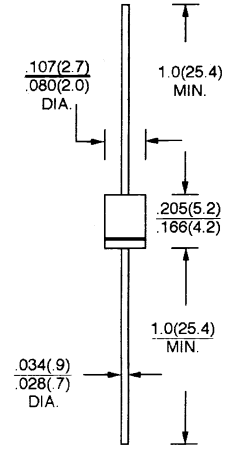
FEATURES

* Low forward voltage drop
* High current capability
* High reliability
* High surge current capability

MECHANICAL DATA

* Case: DO – 41 Molded plastic
* Epoxy: UL 94V – 0 rate flame retardant
* Lead: Axial leads, solderable per MIL – STD – 202, method 208 guaranteed
* Polarity: Color band denotes cathode end
* Weight: 0.33grams

DO-41



Dimensions in inches and (milimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	SYMBOLS	1N5817	1N5818	1N5819	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	V
Maximum RMS Voltage	V_{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	V
Maximum Average Forward Rectified Current .375" (9.5mm) Lead Length @ T_L = 90℃	$I_{F(AV)}$	1.0			A
Peak Forward Surge Current. (8.3 ms half sine)	I_{FSM}	25			A
Maximum Instantaneous Forward Voltage @ 1.0A (Note 1)	V_F	0.450	0.550	0.600	V
Maximum Instantaneous Forward Voltage @ 3.0A (Note 1)	V_{FM}	0.750	0.875	0.900	V
Maximum D.C Reverse Current @ T_A = 25℃ at Rated D.C Blocking Voltage @ T_A = 100℃	I_R	1.0 10			mA mA
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	50			℃/W
Typical Junction Capacitance (Note 3)	C_J	110	50		pF
Operating and Storage Temperature Range	T_J, T_{STG}	– 65 to + 125			℃

NOTE: (1) Pulse test: 300μs pulse width 1% duty cycle.
(2) Thermal Resistance Junction to Ambient Vertical PC Board Mounting, .375"(9.5mm) Lead Length wich 1.5 × 1.5cm(38 × 38mm) copper pads.
(3) Measured at 1 MHz and applied reverse voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES (1N5817 THRU 1N5819)

FIG.1 – FORWARD CURRENT DERATING CURVE

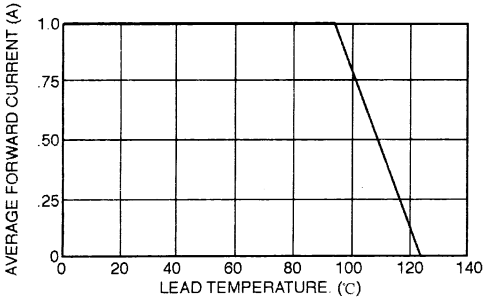


FIG.2 – TYPICAL JUNCTION CAPACITANCE

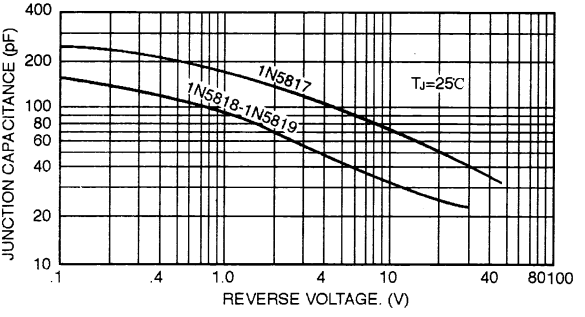


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

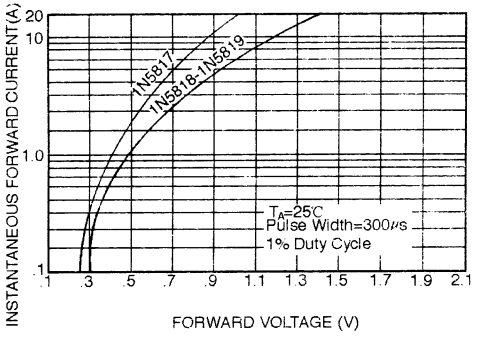


FIG.4 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT