



SCHOTTKY BARRIER RECTIFIER

1N5817 THRU 1N5819

VOLTAGE RANGE
CURRENT

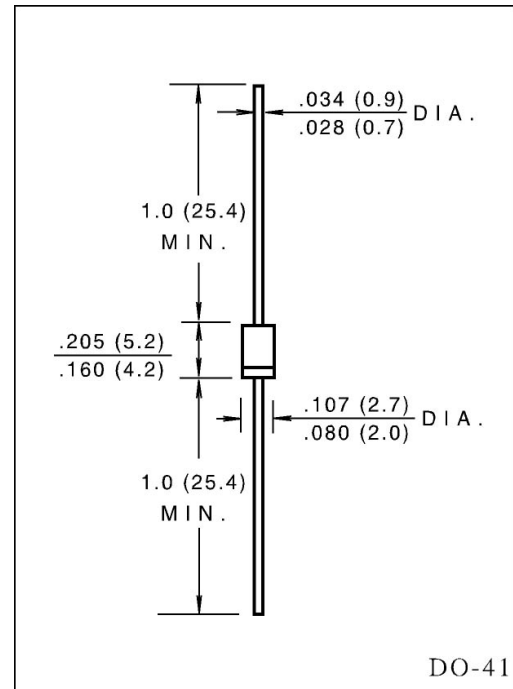
20 to 40 Volts
1.0 Ampere

FEATURES

- Fast switching.
- Low forward voltage, high current capability.
- Low power loss, high efficiency.
- High current surge capability.
- High temperature soldering guaranteed:
250°C/10 seconds, 0.375" (9.5mm) lead length
at 5 lbs. (2.3kg) tension.

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V - 0 rate flame retardant.
- Polarity: Color band denoted cathode end.
- Lead: Plastic axial lead, solderable per MIL - STD - 202E
method 208C
- Mounting position : Any
- Weight: 0.012 ounce, 0.33 gram



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%

		SYMBOLS	1N5817	1N5818	1N5819	UNIT
Maximum Repetitive 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 0.375" (9.5mm) Lead length at T _L = 90°C		I _(AV)	1.0			Amp
Peak Forward Surge Current 8.3ms single half sine - wave superimposed on rated load (JEDEC method)		I _{FSM}	25			Amps
Maximum Instantaneous Forward Voltage (Note 1) at	1.0A	V _F	0.450	0.550	0.600	Volts
	3.0A		0.750	0.875	0.900	
Maximum DC Reverse Current at rated DC blocking voltage (Note 1)	T _A = 25°C	I _R	1.0			mA
	T _A = 100°C		10			
Typical Junction Capacitance (Note 2)		C _j	110			pF
Typical Thermal Resistance (Note 3)		R _{θJA}	50			°C/W
Operating and Storage Temperature Range		T _J , T _{STG}	(-55 to +125)			°C

NOTES:

1. Pulse test: 300 μs pulse width, 1% duty cycle.
2. Measured at 1MHz and applied reverse voltage of 4.0 volts.
3. Thermal resistance from junction to ambient P.C.B. mounted with 0.375" (9.5mm) lead length with 1.5" x 1.5"
(38 X 38mm) copper pads.

FIG.1-TYPICAL FORWARD CURRENT
DERATING CURVE

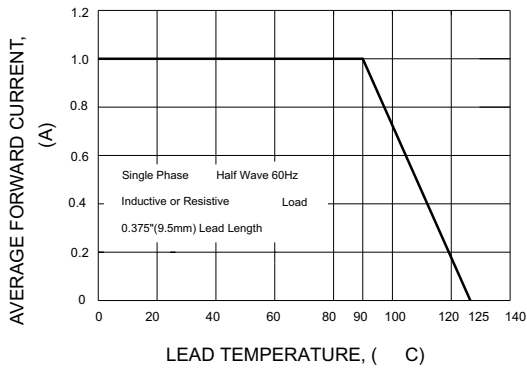


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

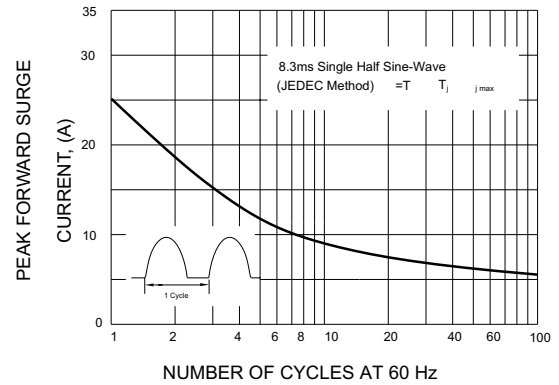


FIG.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

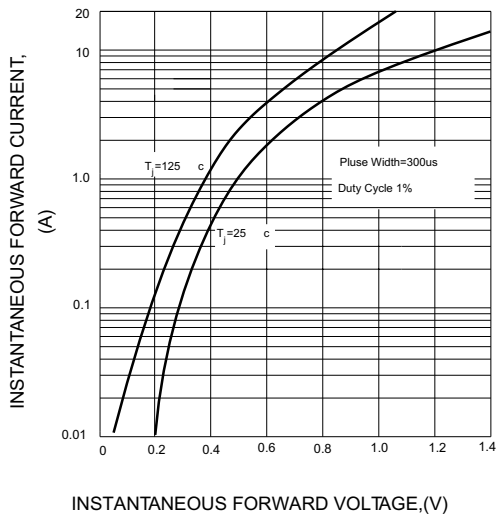


FIG.4-TYPICAL REVERSE
CHARACTERISTICS

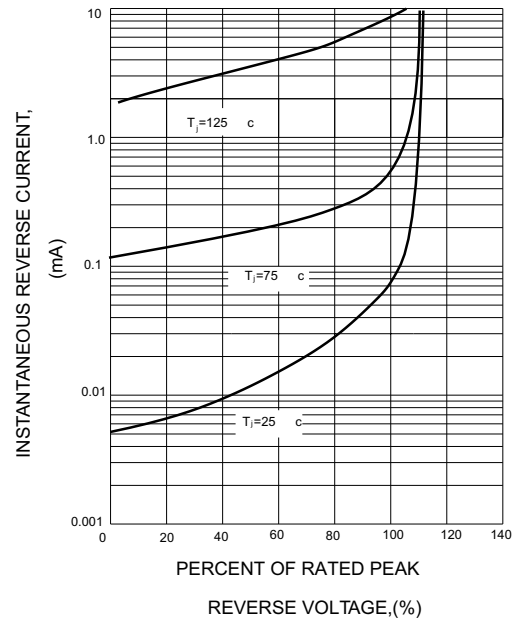


FIG.5-TYPICAL JUNCTION CAPACITANCE

