



SCHOTTKY BARRIER RECTIFIER

1N5817 THRU 1N5819

VOLTAGE RANGE 20 to 40 Volts
CURRENT 1.0 Ampere

FEATURES

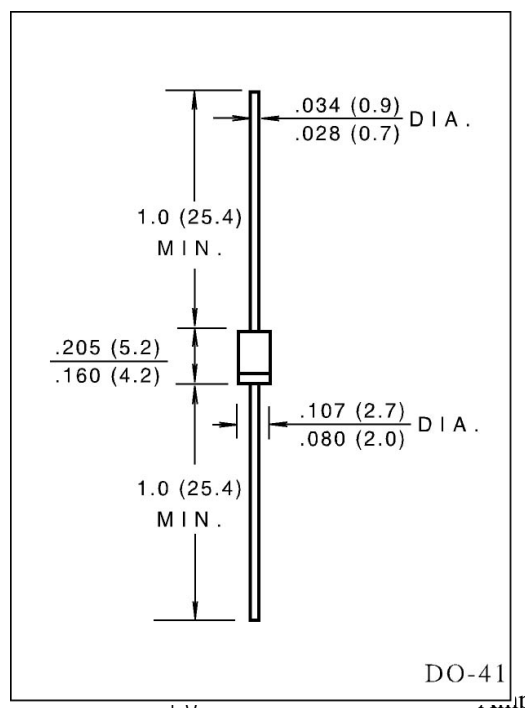
- Fast switching.
- Low forward voltage, high current capability.
- Low power loss, high efficiency.
- High current surge capability.
- High temperature soldering guaranteed:
250°C/10 seconds, 0.375" (9.5mm) lead length
at 5 lbs. (2.3kg) tension.

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

MECHANICAL DATA

- 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. I_{FSM} 25 Amps
- For capacitive load derate current by 20%

		V_F				Volts
	SYMBOLS	1N5817	1N5818	1N5819		UNIT
	V_{RRM}	20	30	40		Volts
Maximum RMS Voltage	V_{RMS}	14	20	28		Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	40		Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead length at $T_L = 90^\circ C$		50 (-55 to +125)				
Peak Forward Surge Current 8.3ms single half sine - wave superimposed on rated load (JEDEC method)						
Maximum Instantaneous Forward Voltage (Note 1) at	1.0A	0.450	0.550	0.600		
	3.0A	0.750	0.875	0.900		
Maximum DC Reverse Current at rated DC blocking voltage (Note 1)	$T_A = 25^\circ C$					
	$T_A = 100^\circ C$					
Typical Junction Capacitance (Note 2)	C_j	110				pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$					°C/W
Operating and Storage Temperature Range	T_J, T_{STG}					°C

NOTES:

1. Pulse test: 300 μ s 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.

POWER SKY (H.K.) LTD.

RATINGS AND CHARACTERISTIC CURVES IN5817 THRU IN5819

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

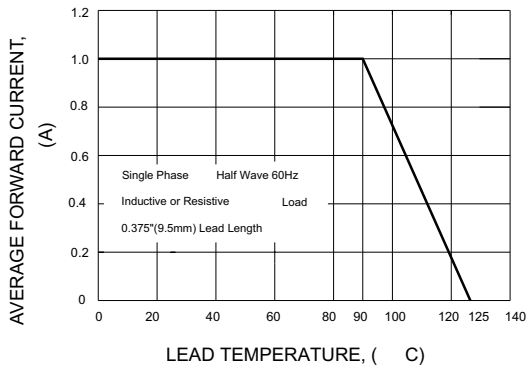


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

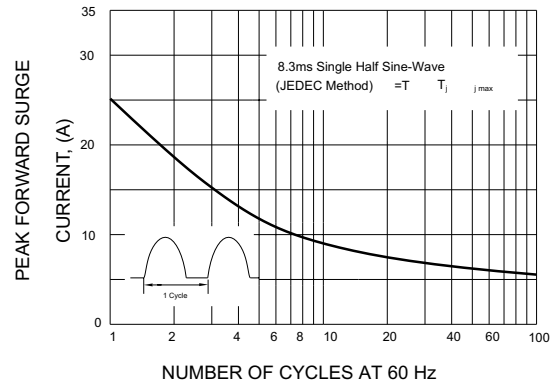


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

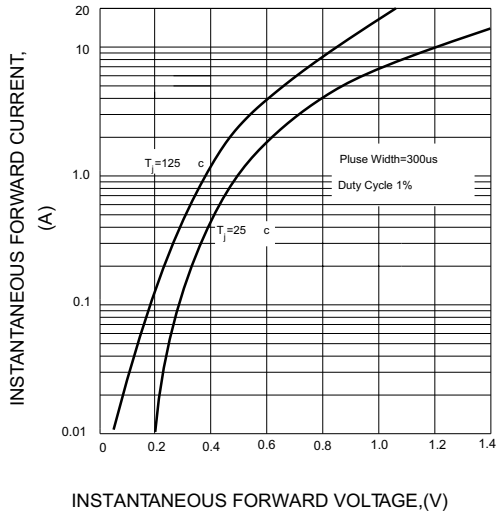


FIG.4-TYPICAL REVERSE CHARACTERISTICS

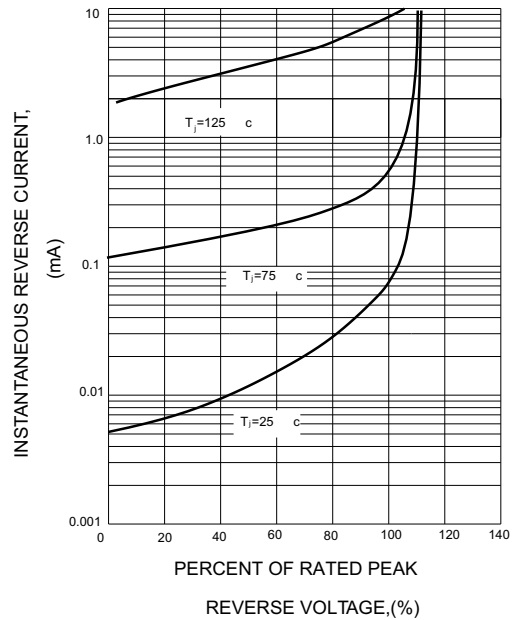


FIG.5-TYPICAL JUNCTION CAPACITANCE

