

SCHOTTKY BARRIEER RECTIFIER

1N5817 THRU 1N5819

VOLTAGE RANGE CURRENT 20 to 40 Volts 1.0 Ampere

FEATURES

- Fast switching speed
- Low forward voltage
- Low power loss, high efficiency
- High surge current capacity
- High Temperature soldering guaranteed: 260 °C / 10 second, 0.375" (9.5mm) lead length

MECHANICAL DATA

Case: Transfer molded plastic

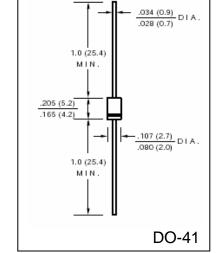
• Epoxy: UL94V – 0 rate flame retardant

• Polarity: Color Band denotes cathode end

 Lead: Plated 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 $T_C = 90^{\circ}$ C (Note 1)	I _(AV)		1.0		Amps
Peak Forward Surge Current					
8.3mS single half sine wave superimposed on	I_{FSM} 25				Amps
rated load (JEDEC method)					
Maximum Instantaneous Forward Voltage @ 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 $T_A = 25$ °C	т	1.0			MA
DC Blocking Voltage per element $T_A = 100$ °C	I_R	10			
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)	C_{J}	110			pF
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	50			^o C/W
Operating Junction Temperature	T_{J}	(-55 to +125)			°C
Storage Temperature Rang	T_{STG}	(-55 to +125)			°C

Notes:

1. Thermal resistance from junction to ambient with 0.375" (9.5mm) lead length, PCB mounted, with 1.5" x 1.5" (38cm x 38cm) copper pads



RATINGS AND CHARACTERISTIC CURVES 1N5817 THRU 1N5819

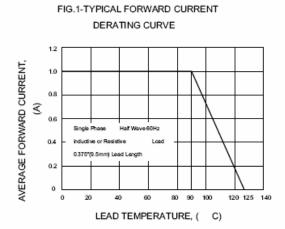


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

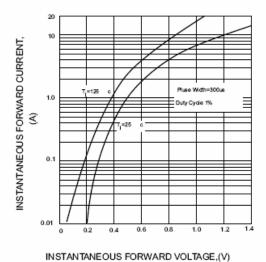


FIG.5-TYPICAL JUNCTION CAPACITANCE

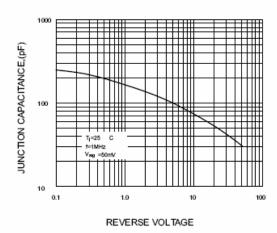


FIG.2-MAXIMUM NON-REPETITIVE PEAK

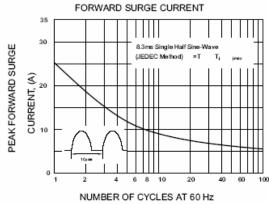


FIG.4-TYPICAL REVERSE CHARACTERISTICS

