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## 1N5817, 1N5818, 1N5819 Schottky Barrier Rectifier DO-41 Type Package

**Absolute Maximum Ratings:** ( $T_A = +25^\circ\text{C}$ , Note 1 unless otherwise specified)

Maximum Repetitive Reverse Voltage,  $V_{RRM}$

1N5817	20V
1N5818	30V
1N5819	40V

Average Forward Rectified Current (.375" (9.5mm) lead length at  $T_L = +90^\circ\text{C}$ ),  $I_{F(AV)}$  ..... 1.0A

Non-Repetitive Peak Surge Current (8.3ms single half sine-wave),  $I_{FSM}$  ..... 25A

Power Dissipation,  $P_D$  ..... 1.25W

Operating Junction Temperature Range  $T_J$  .....  $-65^\circ$  to  $+125^\circ\text{C}$

Storage Temperature Range  $T_{stg}$  .....  $-65^\circ$  to  $+125^\circ\text{C}$

Maximum Thermal Resistance, Junction-to-Ambient (Note 2),  $R_{thJA}$  .....  $100^\circ\text{C/W}$

Maximum Thermal Resistance, Junction-to-Case (Note 2),  $R_{thJC}$  .....  $45^\circ\text{C/W}$

Note 1. These ratings are limiting values above which the serviceability of the device may be impaired.

Note 1. Mounted on Cu-pad Size 5mm x 5mm on PCB.

**Electrical Characteristics:** (Per Diode)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit	
Forward Voltage 1N5817	$V_F$	$I_F = 1\text{A}$	-	-	450	mV	
			-	-	550	mV	
			-	-	600	mV	
		1N5817	$I_F = 3\text{A}$	-	-	750	mV
				-	-	875	mV
				-	-	900	mV
Reverse Current	$I_R$	At rated $V_R$	$T_C = +25^\circ\text{C}$	-	-	0.5	mA
			$T_C = +100^\circ\text{C}$	-	-	10	mA
Total Capacitance	$C_T$	$V_R = 4\text{V}, f = 1\text{MHz}$	-	-	110	pF	

Note 3. Pulse test: Pulse Width = 300 $\mu\text{s}$ , Duty Cycle = 2%.

