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## 1N914, 1N914A, 1N914B Silicon Rectifier Diode Ultra Fast Switch

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

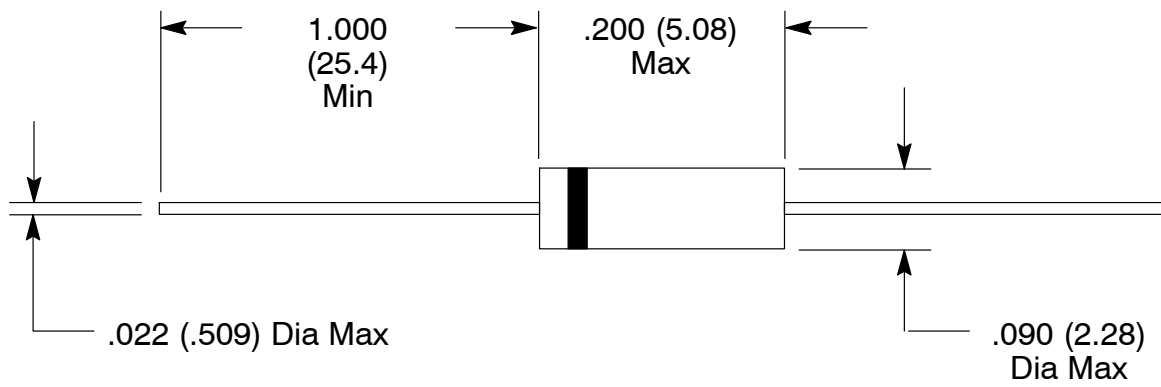
Maximum Repetitive Reverse Voltage, $V_{RRM}$ .....	100V
Average Rectified Forward Current, $I_O$ .....	200mA
DC Forward Current, $I_F$ .....	300mA
Recurrent Peak Forward Current, $I_f$ .....	400mA
Non-Repetitive Peak Forward Surge Current, $I_{FSM}$	
Pulse Width = 1s .....	1A
Pulse Width = 1 $\mu$ s .....	4A
Power Dissipation, $P_D$ .....	500mW
Operating Junction Temperature, $T_J$ .....	+175 $^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	-65 $^\circ$ to +200 $^\circ\text{C}$
Thermal Resistance, Junction-to-Ambient, $R_{thJA}$ .....	300 $^\circ\text{C}/\text{W}$

Note 1. Stresses exceeding the “Absolute Maximum Ratings” may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may effect device reliability. The absolute maximum ratings are stress ratings only.

**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$ , Note 2 unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Breakdown Voltage	$V_R$	$I_R = 100\mu\text{A}$	100	-	-	V
		$I_R = 5\mu\text{A}$	75	-	-	V
Forward Voltage Drop 1N914 1N914A 1N914B	$V_F$	$I_F = 10\text{mA}$	-	-	1	V
		$I_F = 20\text{mA}$	-	-	1	V
		$I_F = 5\text{mA}$	0.62	-	0.72	V
		$I_F = 100\text{mA}$	-	-	1	V
Reverse Leakage Current	$I_R$	$V_R = 20\text{V}$	-	-	0.025	$\mu\text{A}$
		$T_A = +150^\circ\text{C}$	-	-	50	$\mu\text{A}$
		$V_R = 75\text{V}$	-	-	5	$\mu\text{A}$
Total Capacitance	$C_T$	$V_R = 0, f = 1\text{MHz}$	-	-	4	pF
Reverse Recovery Time	$t_{rr}$	$I_F = 10\text{mA}, V_R = 6\text{V} (600\text{mA}), I_{rr} 1\text{mA}, R_L = 100\Omega$	-	-	4	ns

Note 2. Non-recurrent square wave  $P_W = 8.3\text{ms}$ .



Color Band Denotes Cathode