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1N4938 General Purpose Silicon Rectifier DO-35 Type Package

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

Maximum Repetitive Reverse Voltage, V_{RRM}	200V
Average Rectified Forward Current, $I_{F(AV)}$	500mA
Non-Repetitive Peak Forward Surge Current, I_{FSM}	
Pulse Width = 1s	1A
Pulse Width = 1 μ 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 $^\circ\text{C}$
Maximum Thermal Resistance, Junction-to-Ambient, R_{thJA}	+300 $^\circ\text{C}$

Note 1. These ratings are limiting values above which the serviceability of the diode may be impaired and based on a maximum junction temperature of +200 $^\circ\text{C}$.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Breakdown Voltage	V_R	$I_R = 100\mu\text{A}$	200	-	-	V
Forward Voltage	V_F	$I_F = 100\text{mA}$	-	-	1	V
Reverse Leakage	I_R	$V_R = 75\text{V}$	-	-	100	nA
		$V_R = 175\text{V}$, $T_J = +150^\circ\text{C}$	-	-	100	μA
Total Capacitance	C_T	$V_R = 0$, $f = 1\text{MHz}$	-	-	5	pF
Reverse Recovery Time	t_r	$I_F = 30\text{mA}$, $I_R = 30\text{mA}$, $I_{rr} = 1\text{mA}$, $R_L = 100\Omega$	-	-	50	ns

