

NTE177 General Purpose Silicon Rectifier

Description:

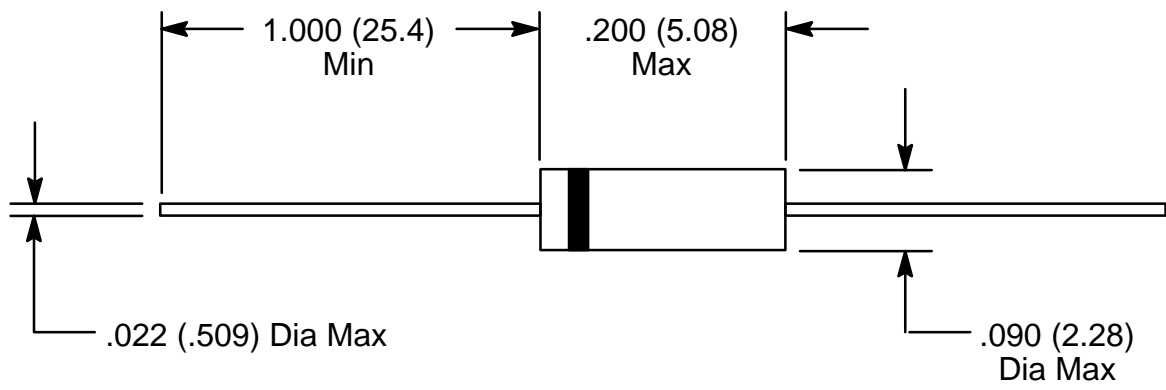
The NTE177 is a general purpose silicon rectifier in a DO35 case designed for switching applications.

Absolute Maximum Ratings:

Continuous Reverse Voltage, V_R	150V
Peak Repetitive Reverse Voltage, V_{RRM}	200V
Forward DC Current, I_F	250mA
Average Forward Current, $I_{F(AV)}$	250mA
Repetitive Peak Forward Current, I_{FRM}	625mA
Non-Repetitive Peak Forward Current, I_{FSM}	
(t < 1s, $T_J = +25^\circ\text{C}$)	1A
(t = 1 μ s, $T_J = +25^\circ\text{C}$)	5A
Total Power Dissipation ($T_A = +25^\circ\text{C}$), P_{tot}	400mW
Operating Junction Temperature, T_J	+175°C
Storage Temperature Range, T_{stg}	-65° to +175°C
Maximum Thermal Resistance, Junction-to-Ambient, R_{thJA}	+375°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Instantaneous Forward Voltage Drop	V_F	$I_F = 100\text{mA}$	-	-	1.0	V
		$I_F = 200\text{mA}$	-	-	1.25	V
Reverse Current	I_R	$V_R = 150\text{V}$	-	-	100	nA
		$V_R = 150\text{V}, T_J = +150^\circ\text{C}$	-	-	100	μA
Breakdown Voltage	$V_{(BR)R}$	$I_R = 100\mu\text{A}$	200	-	-	V
Diode Capacitance	C_d	$V_R = 0, f = 1\text{MHz}$	-	1.5	5.0	pF
Differential Forward Resistance	r_i	$I_F = 10\text{mA}$	-	5	-	Ω
Reverse Recovery Time	t_r	When switched from $I_F = 30\text{mA}$ to $I_R = 30\text{mA}$, $R_L = 100\Omega$, measured at $I_R = 3\text{mA}$	-	-	50	ns



Color Band Denotes Cathode