

NTE525 Silicon Diode High Voltage Fast Recovery Switch

Features:

- Fast Switching
- Low Leakage
- High Current Capability
- High Surge Capability
- High Reliability

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

Maximum Recurrent Peak Reverse Voltage, V_{RRM}	2000V
Maximum RMS Voltage, V_{RMS}	1400V
Maximum DC Blocking Voltage, V_{DC}	2000V
Maximum Average Forward Rectified Current ($T_A = +50^\circ\text{C}$, .375" Lead Length), I_O	500mA
Peak Forward Surge Current (8.3ms single half sine-wave superimposed), I_{FSM}	30A
Operating Junction Temperature Range, T_J	-65° to $+175^\circ\text{C}$
Storage Temperature Range, T_{stg}	-65° to $+175^\circ\text{C}$

Note 1. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Maximum Instantaneous Forward Voltage	V_F	$I_F = 0.5\text{A}/0.2\text{A DC}$	-	-	4	V
Maximum DC Reverse Current	I_R	$V_{DC} = 2000\text{V}$	-	-	5	μA
Maximum Full Load Reverse Current Average	I_R	$T_A = +55^\circ\text{C}$, .375" Lead Length	-	-	100	μA
Maximum Reverse Recovery Time	t_{rr}	$I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{RR} = 0.25\text{A}$	-	-	500	ns

Note 1. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

