



ELECTRONICS, INC.  
 44 FARRAND STREET  
 BLOOMFIELD, NJ 07003  
 (973) 748-5089

## 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), $I_O$ .....	200mA
Peak Forward Surge Current (8.3ms single half sine-wave superimposed), $I_{FSM}$ .....	30A
Operating Junction Temperature Range, $T_J$ .....	$-65^\circ$ to $+175^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-65^\circ$ 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	$\mu\text{A}$
Maximum Full Load Reverse Current Average	$I_R$	$T_A = +55^\circ\text{C}$ , .375" Lead Length	-	-	100	$\mu\text{A}$
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%.

