



ELECTRONICS, INC.  
 44 FARRAND STREET  
 BLOOMFIELD, NJ 07003  
 (973) 748-5089  
<http://www.nteinc.com>

## NTE581 General Purpose Silicon Rectifier Fast Recovery 2-Lead TO220 Type Package

**Features:**

- Fast Switching
- Low Leakage
- Low Forward Voltage Drop
- High Current Capability
- High Surge Capability
- High Reliability

**Maximum Ratings and Electrical Characteristics:**

( $T_A = +25^\circ\text{C}$  unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%)

Maximum Recurrent Peak Reverse Voltage .....	400V
Maximum RMS Voltage .....	280V
Maximum DC Blocking Voltage .....	400V
Maximum Average Forward Rectified Current (.375" (9.5mm) Lead Length, $T_A = +75^\circ\text{C}$ ) .....	8A
Peak Forward Surge Current (8.3ms Single Half Sine-Wave Superimposed on Rted Load) .	300A
Maximum Instantaneous Forward Voltage ( $I_F = 8\text{A}$ ) .....	1.3V
Maximum DC Reverse Current ( $V_{DC} = 400\text{V}$ , $T_A = +25^\circ\text{C}$ ) .....	10 $\mu\text{A}$
Maximum Full Load Reverse Current (Full Cycle Average, .375" (9.5mm) Lead Length, $T_C = +100$ ) .....	150 $\mu\text{A}$
Maximum Reverse Recovery Time (Note 1) .....	150ns
Typical Junction Capacitance (Note 2) .....	65pF
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. Reverse Recovery Test Conditions:  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{RR} = 0.25\text{A}$ .

Note 2. Measured at 1MHz and applied reverse voltage of 4V.

