



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

## NTE53000 thru NTE53004 Single Phase Bridge Rectifier 10 Amp

**Features:**

- Diffused Junction
- High Current Capability
- High Case Dielectric Strength
- High Surge Current Capability
- Ideal for Printed Circuit Board Applications

**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 DC Blocking Voltage, $V_{RM}$	
NTE53000	200V
NTE53001	400V
NTE53002	600V
NTE53003	800V
NTE53004	1000V
Working Peak Reverse Voltage, $V_{RWM}$	
NTE53000	200V
NTE53001	400V
NTE53002	600V
NTE53003	800V
NTE53004	1000V
Maximum Peak Recurrent Reverse Voltage, $V_{RRM}$	
NTE53000	200V
NTE53001	400V
NTE53002	600V
NTE53003	800V
NTE53004	1000V
RMS Reverse Voltage, $V_{R(RMS)}$	
NTE53000	140V
NTE53001	280V
NTE53002	420V
NTE53003	560V
NTE53004	700V
Thermal Energy (Rating for Fusing, $t < 8.3\text{ms}$ , Note 1), $I^2t$	
64 Amps <sup>2</sup> /Sec	
Non-Repetitive Peak Forward Surge Current, $I_{FSM}$	
(Single Half-Sine Wave Superimposed on Rated Load, 8.3ms)	
200A	
Average Forward Rectified Current ( $T_A = +50^{\circ}\text{C}$ , Note 2), $I_O$	
10A	

Note 1. Non-repetitive, for  $t > 1\text{ms}$  and  $< 8.3\text{ms}$ .

Note 2. Mounted on heatsink.

**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 Forward Voltage (Per Diode at 5A DC), $V_{FM}$ .....	1.1V
Maximum Reverse Current (at Rated $V_{RM}$ ), $I_{RM}$	
$T_C = +25^\circ\text{C}$ .....	10 $\mu\text{A}$
$T_C = +100^\circ\text{C}$ .....	1mA
Typical Junction Capacitance (Note 3), $C_J$ .....	110pF
Operating Junction Temperature Range, $T_J$ .....	$-65^\circ$ to $+125^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-65^\circ$ to $+120^\circ\text{C}$
Typical Thermal Resistance, Junction-to-Case (Per Diode), $R_{thJC}$ .....	7.5K/W

Note 3. Measured at 1MHz and applied reverse voltage of 4VDC.

