



ELECTRONICS, INC.
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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 Amps²/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 μA
$T_C = +100^{\circ}\text{C}$	1mA
Typical Junction Capacitance (Note 3), C_J	110pF
Operating Junction Temperature Range, T_J	-65° to $+125^{\circ}\text{C}$
Storage Temperature Range, T_{stg}	-65° 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.

