



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



NTE5300 thru NTE5303 Silicon Bridge Rectifier, 8A

Features:

- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards

Maximum Ratings and Electrical Characteristics: ($T_A = +25^\circ\text{C}$ unless otherwise specified.
Single Phase, Half Wave, 60Hz, Resistive or Inductive Load, Note 1.)

Peak Repetitive Reverse Voltage, V_{RRM}

NTE5300	200V
NTE5301	600V
NTE5302	800V
NTE5303	1000V

Working Peak Reverse Voltage, V_{RWM}

NTE5300	200V
NTE5301	600V
NTE5302	800V
NTE5303	1000V

DC Blocking Voltage, V_R

NTE5300	200V
NTE5301	600V
NTE5302	800V
NTE5303	1000V

Maximum RMS Bridge Input Voltage, $V_{R(RMS)}$

NTE5300	140V
NTE5301	420V
NTE5302	560V
NTE5303	700V

Average Rectified Output Current, I_O

$T_A = +100^\circ\text{C}$	8A
$T_A = +45^\circ\text{C}$	6A

Peak Forward Surge Current (8.3ms single half wave superimposed on rated load), I_{FSM} . . . 200A

I^2t Rating for Fusing ($t < 8.35\text{ms}$), I^2t . . . 166A²s

Maximum Forward Voltage Drop (Per element at 8A), V_{FM} . . . 1.0V

Maximum Reverse Current at Rated DC Blocking Voltage Per Element, I_R

$T_A = +25^\circ\text{C}$	5.0 μA
$T_A = +100^\circ\text{C}$	500 μA

Operating Temperature Range, T_J . . . -55° to $+150^\circ\text{C}$

Storage Temperature Range, T_{stg} . . . -55° to $+150^\circ\text{C}$

Typical Thermal Resistance, Junction-to-Ambient (Note 2), R_{thJA} . . . 18K/W

Typical Thermal Resistance, Junction-to-case (Note 3), R_{thJC} . . . 3K/W

Note 1. For capacitive load, derate current by 20%.

Note 2. Mounted on PCB at 9.5mm lead length with 12mm² copper pads.

Note 3. Mounted on a 7.5 x 7.5 x 3.0cm thick AL plate.

