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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	166A ² s
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°C
Storage Temperature Range, T_{stg}	-55° to +150°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.

