



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



NTE53016 thru NTE53020 Silicon Bridge Rectifier, 50A

Features:

- Diffused Junction
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Electrically Isolated, Low Profile Epoxy Case for Maximum Heat Dissipation
- Mounting: Through Hole with #10 Screw

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)

Maximum Recurrent Peak Reverse Voltage, V_{RRM}

NTE53016	200V
NTE53018	600V
NTE53020	1000V

Working Peak Reverse Voltage, V_{RWM}

NTE53016	200V
NTE53018	600V
NTE53020	1000V

Maximum RMS Bridge Input Voltage, V_{RMS}

NTE53016	140V
NTE53018	420V
NTE53020	700V

Maximum DC Blocking Voltage, V_{DC}

NTE53016	200V
NTE53018	600V
NTE53020	1000V

Maximum Average Forward Rectified Output Current ($T_A = +60^\circ\text{C}$), $I_{O(AV)}$. . . 50A

Peak Forward Surge Current (8.3ms single half wave superimposed on rated load), I_{FSM} . . . 450A

Maximum Forward Voltage Drop (Per element at 25A), V_F . . . 1.1V

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

$T_A = +25^\circ\text{C}$	50 μA
$T_A = +125^\circ\text{C}$	500 μA

I^2t Rating for Fusing ($t < 8.3\text{ms}$), I^2t . . . 800A²s

Typical Junction Capacitance (Note 2), C_j . . . 400pF

Typical Thermal Resistance, Junction-to-Case (Per element, Note 3), R_{thJC} . . . 1.6 $^\circ\text{C/W}$

RMS Isolation Voltage from Case to Leads, V_{ISO} . . . 2500V

Operating Temperature Range, T_J . . . -65° to $+150^\circ\text{C}$

Storage Temperature Range, T_{stg} . . . -65° to $+150^\circ\text{C}$

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

Note 2. Measured at 1.0MHz and applied reverse voltage of 4.0VDC.

Note 3. Thermal resistance junction-to-case, mounted on a heatsink.

