



ELECTRONICS, INC.
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NTE53016 thru NTE53020 Silicon Bridge Rectifier, 50A

Features:

- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- High Surge Current Capability
- Electrically Isolated, Low Profile Epoxy Case for Maximum Heat Dissipation
- Low Thermal Resistance
- 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 ($T_A = +55^\circ\text{C}$), $I_{O(AV)}$	
50A	
Peak Forward Surge Current (8.3ms single half wave superimposed on rated load), I_{FSM} ...	
500A	
Maximum Forward Voltage Drop (Per element at 25A), V_F	
1.1V	
Maximum Reverse Current at Rated DC Blocking Voltage Per Element, I_R	
$T_A = +25^\circ\text{C}$	10 μA
$T_A = +125^\circ\text{C}$	500 μA
I^2t Rating for Fusing ($t < 8.3\text{ms}$), I^2t	
800A ² s	
Typical Junction Capacitance (Note 2), C_j	
300pF	
Typical Thermal Resistance, Junction-to-Case (Per element, Note 3), R_{thJC}	
1.4 $^\circ\text{C}/\text{W}$	
RMS Isolation Voltage from Case to Leads, V_{ISO}	
2500V	
Operating Temperature Range, T_J	
-55 $^\circ$ to +150 $^\circ\text{C}$	
Storage Temperature Range, T_{stg}	
-55 $^\circ$ 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.



