



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

NTE166 thru NTE170 Bridge Rectifier, Single Phase 2.0 Amp

Features:

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Board

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%)

Peak Repetitive Reverse Voltage, V_{RRM}	
NTE166	100V
NTE167	200V
NTE168	400V
NTE169	600V
NTE170	1000V
Working Peak Reverse Voltage, V_{RWM}	
NTE166	100V
NTE167	200V
NTE168	400V
NTE169	600V
NTE170	1000V
DC Blocking Voltage, V_R	
NTE166	100V
NTE167	200V
NTE168	400V
NTE169	600V
NTE170	1000V
RMS Reverse Voltage, $V_{R(RMS)}$	
NTE166	70V
NTE167	140V
NTE168	280V
NTE169	420V
NTE170	700V
Average Rectified Output Current ($T_A = +50^\circ\text{C}$, Note 1), I_O	
2A	
Peak Forward Surge Current, I_{FSM}	
(8.3ms Single Sine-Wave Superimposed on Rated Load)	
60A	
Forward Voltage Drop (Per Bridge Element, $I_F = 2A$), V_{FM}	
1.1V	

Note 1. Leads maintained at ambient temperature at a distance of 9.5mm from case.

Maximum Ratings and Electrical Characteristics (Cont'd): ($T_A = +25^\circ\text{C}$ unless otherwise specified. Single Phase, Half Wave, 60Hz, Resistive or Inductive Load. For Capacitive Load, Derate Current by 20%)

Maximum Reverse Current (at Rated DC Blocking Voltage), I_{RM}

$T_A = +25^\circ\text{C}$	
All Devices	10 μA
NTE170 Only	5 μA

$T_A = +100^\circ\text{C}$	500 μA
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Rating for Fusing ($t < 8.3\text{ms}$), I^2t 15 A^2s

Typical Junction Capacitance (Per Element, Note 2), C_j 25pF

Typical Thermal Resistance, Junction-to-Ambient (Note 3), R_{thJA} 30K/W

Operating Junction Temperature Range, T_J

All Devices	-55° to +165°C
NTE170 Only	-55° to +150°C

Storage Temperature Range, T_{stg}

All Devices	-55° to +165°C
NTE170 Only	-55° to +150°C

Note 2. Measured at 1.0MHz and applied reverse voltage of 4VDC.

Note 3. Thermal resistance junction-to-ambient mounted on a PC board with 12mm² copper pad.

