



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 $\mu\text{A}$
NTE170 Only	5 $\mu\text{A}$

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

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 12mm<sup>2</sup> copper pad.

