ELECTRONICS, INC.
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BLOOMFIELD, NJ 07003
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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°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°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°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°C

All Devices 10μA

NTE170 Only 5μA

T_A = +100°C 500μA

Rating for Fusing (t < 8.3ms), I^2t ..... $15A^2s$

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 $12mm^2$ copper pad.