ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089

NTE6102 thru NTE6109
Industrial Rectifier, 550A

Features:
- Standard and Reverse Polarities
- Flag Lead and Stud Top Terminals
- High Surge Current Ratings
- High Rated Blocking Voltages

Applications:
- Welders
- Battery Chargers
- Electrochemical Refining
- Metal Reduction
- General Industrial High Current Rectification

Electrical Characteristics:

Voltage (Blocking State Maximums at Maximum T_J)

Repetitive Peak Reverse Voltage, V_{RRM}
- NTE6102, NTE6103* 600V
- NTE6104, NTE6105* 1200V
- NTE6108, NTE6109* 1600V

Non–Repetitive Transient Peak Reverse Voltage ($t \le 5.0$ms), V_{RSM}
- NTE6102, NTE6103* 700V
- NTE6104, NTE6105* 1400V
- NTE6108, NTE6109* 1700V

Reverse Leakage Current (Peak), I_{RRM} 50mA

Current (Conducting State Maximums)

RMS Forward Current, $I_{F\ (RMS)}$ 470A

Average Forward Current, $I_{F\ (AV)}$ 300A

Surge Current, I_{FSM}
- $^1/_2$ Cycle 7000A
- 3 Cycle 5250A
- 10 Cycle 4200A

Forward Voltage Drop, V_{FM}
- (I_{FM} = 1500A, T_J = +25°C) 2.15V
- (Rated single phase average current and case temperature) 1.45V

I^2t for Fusing (for times = 8.3ms), I^2t . . . . . 204,000A^2sec

Note 1. * Indicates reverse (anode to case) polarity.

Electrical Characteristics (Cont'd):

Switching

Typical Reverse Recovery Time, t_{rr}
(I_{FM} = 1500A, t_P = 190µs, diR/dt = 25A/µs, T_C = +25°C) 9µs

Thermal and Mechanical

Operating Junction Temperature Range, T_J . . . . . –65° to +200°C
Storage Temperature Range, T_{stg} . . . . . –65° to +200°C
Thermal Resistance, Junction–to–Case, R_{thJC} . . . . . 0.12°C/W
Thermal Resistance, Case–to–Sink (Lubricated), R_{thCS} . . . . . 0.04°C/W
Maximum Mounting Torque . . . . . 360in. lb.