



ELECTRONICS, INC.

44 FARRAND STREET

BLOOMFIELD, NJ 07003

(973) 748-5089

<http://www.nteinc.com>

## NTE6106 & NTE6107 Industrial Rectifier, 450A

### 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,  $V_{RRM}$

NTE6106, NTE6107\* ..... 1600V

Non-Repetitive Transient Peak Reverse Voltage ( $t \leq 5.0\text{ms}$ ),  $V_{RSM}$

NTE6106, NTE6107\* ..... 1800V

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

#### **Current** (Conducting State Maximums)

RMS Forward Current,  $I_F$  (RMS) ..... 700A

Average Forward Current,  $I_F$  (AV) ..... 450A

Surge Current,  $I_{FSM}$

$\frac{1}{2}$  Cycle ..... 8500A

3 Cycle ..... 6400A

10 Cycle ..... 5100A

Forward Voltage Drop,  $V_{FM}$

( $I_{FM} = 1500\text{A}$ ,  $T_J = +25^\circ\text{C}$ ) ..... 1.6V

$I^2t$  for Fusing (for times = 8.3ms),  $I^2t$  ..... 266,000A<sup>2</sup>sec

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

**Electrical Characteristics (Cont'd):**

**Switching**

Typical Reverse Recovery Time,  $t_{rr}$   
( $I_{FM} = 1500A$ ,  $t_p = 190\mu s$ ,  $diR/dt = 25A/\mu s$ ,  $T_C = +25^\circ C$ ) .....  $11\mu s$

**Thermal and Mechanical**

Operating Junction Temperature Range,  $T_J$  .....  $-65^\circ$  to  $+175^\circ C$   
Storage Temperature Range,  $T_{stg}$  .....  $-65^\circ$  to  $+200^\circ C$   
Thermal Resistance, Junction-to-Case,  $R_{thJC}$  .....  $0.12^\circ C/W$   
Thermal Resistance, Case-to-Sink (Lubricated),  $R_{thCS}$  .....  $0.04^\circ C/W$   
Maximum Mounting Torque ..... 360in. lb.

