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## 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<sub>J</sub>)

Repetitive Peak Reverse Voltage, V <sub>RRM</sub>	
NTE6106, NTE6107* .....	1600V
Non-Repetitive Transient Peak Reverse Voltage (t ≤ 5.0ms), V <sub>RSM</sub>	
NTE6106, NTE6107* .....	1800V
Reverse Leakage Current (Peak), I <sub>RRM</sub> .....	50mA

**Current** (Conducting State Maximums)

RMS Forward Current, I <sub>F (RMS)</sub> .....	700A
Average Forward Current, I <sub>F (AV)</sub> .....	450A
Surge Current, I <sub>FSM</sub>	
1/2 Cycle .....	8500A
3 Cycle .....	6400A
10 Cycle .....	5100A
Forward Voltage Drop, V <sub>FM</sub>	
(I <sub>FM</sub> = 1500A, T <sub>J</sub> = +25°C) .....	1.6V
I <sup>2</sup> t for Fusing (for times = 8.3ms), I <sup>2</sup> t .....	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.

