



ELECTRONICS, INC.
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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_J)

| | |
|---|-------|
| Repetitive Peak Reverse Voltage, V_{RRM} | |
| NTE6106, NTE6107* | 1600V |
| Non-Repetitive Transient Peak Reverse Voltage ($t \leq 5.0ms$), 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} | |
| 1/2 Cycle | 8500A |
| 3 Cycle | 6400A |
| 10 Cycle | 5100A |
| Forward Voltage Drop, V_{FM} | |
| ($I_{FM} = 1500A, T_J = +25^\circ C$) | 1.6V |
| I^2t for Fusing (for times = 8.3ms), I^2t | 266,000A ² 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° to $+175^\circ C$
Storage Temperature Range, T_{stg} -65° 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.

