

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

