



ELECTRONICS, INC.
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NTE53504 thru NTE53516 Bridge Rectifier, 3-Phase, Glass Passivated, 35A

Features:

- Low Forward Voltage Drop
- High Current Capacity
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
- Epoxy Case with Heat Sink Internally Mounted in the Bridge Encapsulation
- Mounting: Through Hole with #10 Screw

Maximum Ratings and Electrical Characteristics: ($T_A = +25^\circ\text{C}$ unless otherwise specified. Single Phase, Half Wave, 60Hz, Resistive or Inductive Load, Note 1)

Maximum Peak Repetitive Reverse Voltage, V_{RRM}	
NTE53504	400V
NTE53508	800V
NTE53512	1200V
NTE53516	1600V
Working Peak Reverse Voltage, V_{RWM}	
NTE53504	400V
NTE53508	800V
NTE53512	1200V
NTE53516	1600V
Maximum DC Blocking Voltage, V_R	
NTE53504	400V
NTE53508	800V
NTE53512	1200V
NTE53516	1600V
Maximum Peak Non-Replicative Reverse Voltage, V_{RSM}	
NTE53504	500V
NTE53508	900V
NTE53512	1300V
NTE53516	1700V
Maximum RMS Reverse Voltage, $V_{R(RMS)}$	
NTE53504	280V
NTE53508	560V
NTE53512	840V
NTE53516	1120V
Maximum Average Forward Rectified Output Current ($T_A = +60^\circ\text{C}$), $I_{O(AV)}$	
35A	
Non-Replicative Peak Forward Surge Current, I_{FSM}	
No Voltage Reapplied, $t = 8.3\text{ms}$ at 60Hz	500A
No Voltage Reapplied, $t = 10\text{ms}$ at 50Hz	475A
100% V_{RRM} Reapplied, $t = 8.3\text{ms}$ at 60Hz	420A
100% V_{RRM} Reapplied, $t = 10\text{ms}$ at 50Hz	400A

Note 1. For capacitive load, derate current by 20%.



Maximum Ratings and Electrical Characteristics (Cont'd): ($T_A = +25^\circ\text{C}$ unless otherwise specified. Single Phase, Half Wave, 60Hz, Resistive or Inductive Load, Note 1)

I^2t Rating for Fusing, I^2t

No Voltage Reapplied, $t = 8.3\text{ms}$ at 60Hz	1030A ² s
No Voltage Reapplied, $t = 10\text{ms}$ at 50Hz	1130A ² s
100% V_{RRM} Reapplied, $t = 8.3\text{ms}$ at 60Hz	730A ² s
100% V_{RRM} Reapplied, $t = 10\text{ms}$ at 50Hz	800A ² s

Maximum Forward Voltage Drop (Per element, $T_J = +25^\circ\text{C}$, $I_{FM} = 40A_{pk}$), V_F

Maximum Peak Reverse Current at Rated DC Blocking Voltage Per Element, I_R

$T_J = +25^\circ\text{C}$	10 μA
$T_J = +125^\circ\text{C}$	5mA

RMS Isolation Voltage, Terminals-to-Case ($t = 1\text{min}$), V_{ISO}

Thermal Resistance, Junction-to-Case (DC Operation per Bridge), R_{thJC}

Thermal Resistance, Case-to-Heatsink (Note 2), R_{thCS}

Operating Temperature Range, T_J

Storage Temperature Range, T_{stg}

Note 1. For capacitive load, derate current by 20%.

Note 2. Mounting surface, smooth, flat, and greased.

