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NTE5312 thru NTE5317 Single Phase Bridge Rectifier 8 Amp

Features:

- Diffused Junction
- High Current Capability
- High Case Dielectric Strength
- High Surge Current Capability
- Ideal for Printed Circuit Board Application
- Mounting Hole Thru for #6 Screw

Maximum Ratings and Electrical Characteristics: ($T_A = +25^\circ\text{C}$ unless otherwise specified. Single Phase, Full Wave, 60Hz, Resistive or Inductive Load. For Capacitive Load, Derate Current by 20%)

Peak Repetitive Reverse Voltage, V_{RRM}

NTE5312	100V
NTE5313	200V
NTE5314	400V
NTE5315	600V
NTE5316	800V
NTE5317	1000V

Working Peak Reverse Voltage, V_{RWM}

NTE5312	100V
NTE5313	200V
NTE5314	400V
NTE5315	600V
NTE5316	800V
NTE5317	1000V

DC Blocking Voltage, V_R

NTE5312	100V
NTE5313	200V
NTE5314	400V
NTE5315	600V
NTE5316	800V
NTE5317	1000V

RMS Reverse Voltage, $V_{R(RMS)}$

NTE5312	70V
NTE5313	140V
NTE5314	280V
NTE5315	420V
NTE5316	560V
NTE5317	700V

Rev. 7-22



Maximum Ratings and Electrical Characteristics (Cont'd): ($T_A = +25^\circ\text{C}$ unless otherwise specified.
Single Phase, Full Wave, 60Hz, Resistive or Inductive Load. For Capacitive Load, Derate Current by 20%)

Average Forward Output Current, I_O

$T_C = +50^\circ\text{C}$, Note 1 8A

$T_A = +40^\circ\text{C}$, Note 2 4A

Non-Repetitive Peak Forward Surge Current, I_{FSM}

(8.3ms Single Sine-Wave Superimposed on Rated Load) 175A

Forward Voltage Drop (Per Bridge Element, $I_F = 4\text{A}$), V_{FM} 1.1V

Peak Reverse Current (at Rated DC Blocking Voltage), I_{RM}

$T_A = +25^\circ\text{C}$ $5\mu\text{A}$

$T_A = +125^\circ\text{C}$ $500\mu\text{A}$

I^2t Rating for Fusing ($t < 8.3\text{ms}$), I^2t $166\text{A}^2\text{s}$

Typical Junction Capacitance (Note 3), C_J

NTE5312, NTE5313, NTE5314 211pF

NTE5315, NTE5316, NTE5317 94pF

RMS Isolation Voltage (Terminals to case, $t = 1\text{min}$), V_{ISO} 1500V

Operating Junction Temperature Range, T_J -55° to $+150^\circ\text{C}$

Storage Temperature Range, T_{stg} -55° to $+150^\circ\text{C}$

Thermal Resistance, Junction-to-Ambient (Note 2), R_{thJA} 22°C/W

Thermal Resistance, Junction-to-Case (Note 1), R_{thJC} 6.2°C/W

Note 1. Mounted on $150 \times 150 \times 3.0\text{mm}$ thick Al heatsink.

Note 2. Mounted on PCB with $12 \times 12\text{mm}$ copper pads and measured at lead length 9.5mm from case.

Note 3. Measured at 1.0Mhz and applied reverse voltage of 4.0VDC .

