ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089
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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°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

RoHS

Maximum Ratings and Electrical Characteristics (Cont'd): (T_A = +25°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°C, Note 1 . . . . . 8A
- T_A = +40°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 = 4A), V_{FM} 1.1V

Peak Reverse Current (at Rated DC Blocking Voltage), I_{RM}
- T_A = +25°C 5μA
- T_A = +125°C 500μA

I^2t Rating for Fusing (t < 8.3ms), I^2t . . . . . $166A^2s$

Typical Junction Capacitance (Note 3), C_J
- NTE5312, NTE5313, NTE5314 . . . . . 211pF
- NTE5315, NTE5316, NTE5317 . . . . . 94pF

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

Operating Junction Temperature Range, T_J . . . . . −55° to +150°C

Storage Temperature Range, T_{stg} . . . . . −55° to +150°C

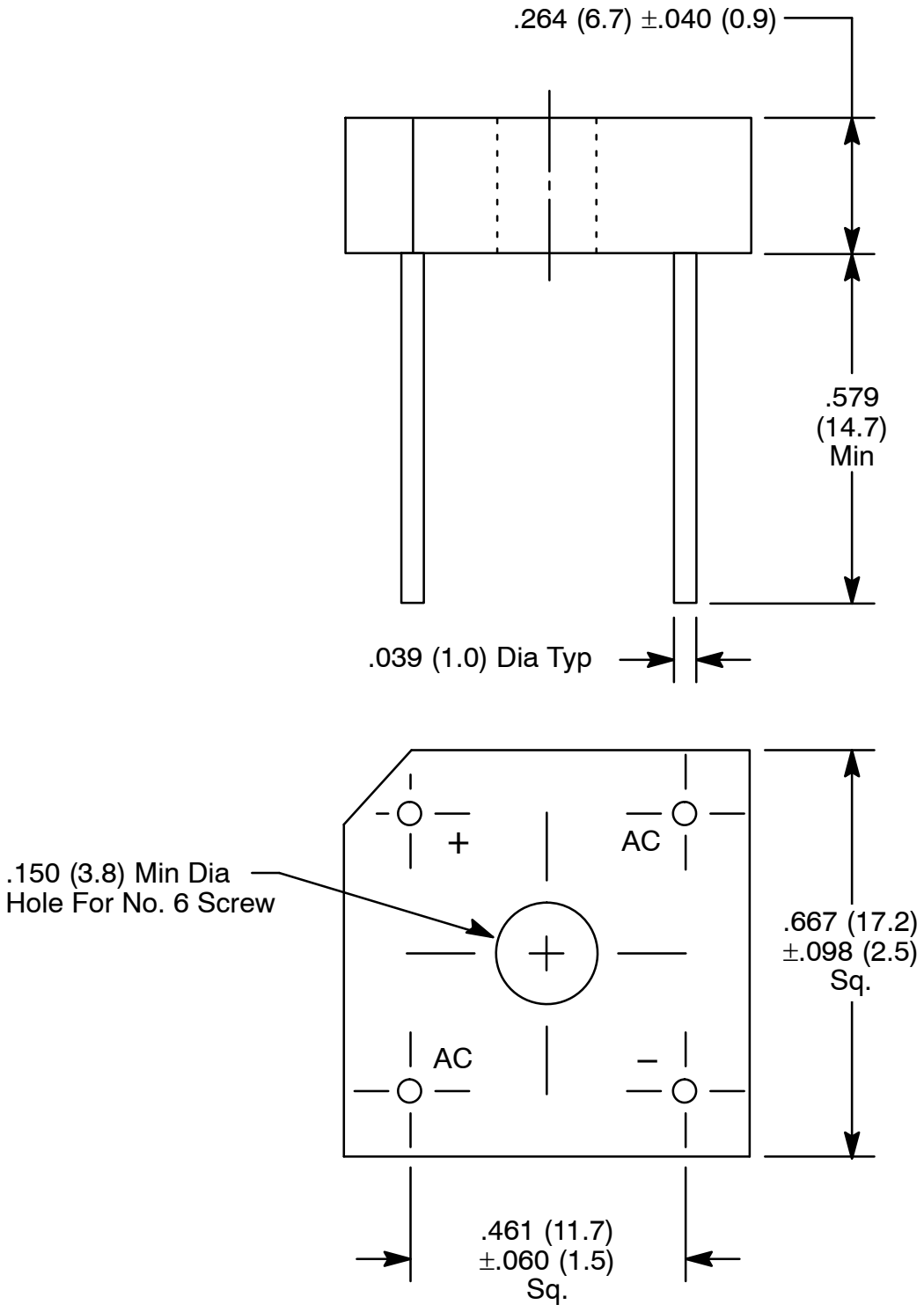
Thermal Resistance, Junction−to−Ambient (Note 2), R_{thJA} . . . . . 22°C/W

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

Note 1. Mounted on 150 x 150 x 3.0mm thick Al heatsink.

Note 2. Mounted on PCB with 12 x 12mm copper pads and measured at lead length 9.5mm from case.

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


.264 (6.7) ±.040 (0.9)
.579
(14.7)
Min
.039 (1.0) Dia Typ
.150 (3.8) Min Dia
Hole For No. 6 Screw
+
AC
AC
–
.667 (17.2)
±.098 (2.5)
Sq.
.461 (11.7)
±.060 (1.5)
Sq.