NTE5300 thru NTE5303
Silicon Bridge Rectifier, 8A

Features:
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards

Maximum Ratings and Electrical Characteristics: (T_A = +25°C unless otherwise specified. Single Phase, Half Wave, 60Hz, Resistive or Inductive Load, Note 1.)

Peak Repetiive Reverse Voltage, V_{RRM}
- NTE5300 . . . . . 200V
- NTE5301 . . . . . 600V
- NTE5302 . . . . . 800V
- NTE5303 . . . . . 1000V

Working Peak Reverse Voltage, V_{RWM}
- NTE5300 . . . . . 200V
- NTE5301 . . . . . 600V
- NTE5302 . . . . . 800V
- NTE5303 . . . . . 1000V

DC Blocking Voltage, V_R
- NTE5300 . . . . . 200V
- NTE5301 . . . . . 600V
- NTE5302 . . . . . 800V
- NTE5303 . . . . . 1000V

Maximum RMS Bridge Input Voltage, $V_{R(RMS)}$
- NTE5300 . . . . . 140V
- NTE5301 . . . . . 420V
- NTE5302 . . . . . 560V
- NTE5303 . . . . . 700V

Average Rectified Output Current, I_O
- T_A = +100°C 8A
- T_A = +45°C 6A

Peak Forward Surge Current (8.3ms single half wave superimposed on rated load), I_{FSM} . . . 200A

I^2t Rating for Fusing (t < 8.35ms), I^2t . . . . . $166A^2s$

Maximum Forward Voltage Drop (Per element at 8A), V_{FM} 1.0V

Maximum Reverse Current at Rated DC Blocking Voltage Per Element, I_R
- T_A = +25°C 5.0μA
- T_A = +100°C 500μA

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

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

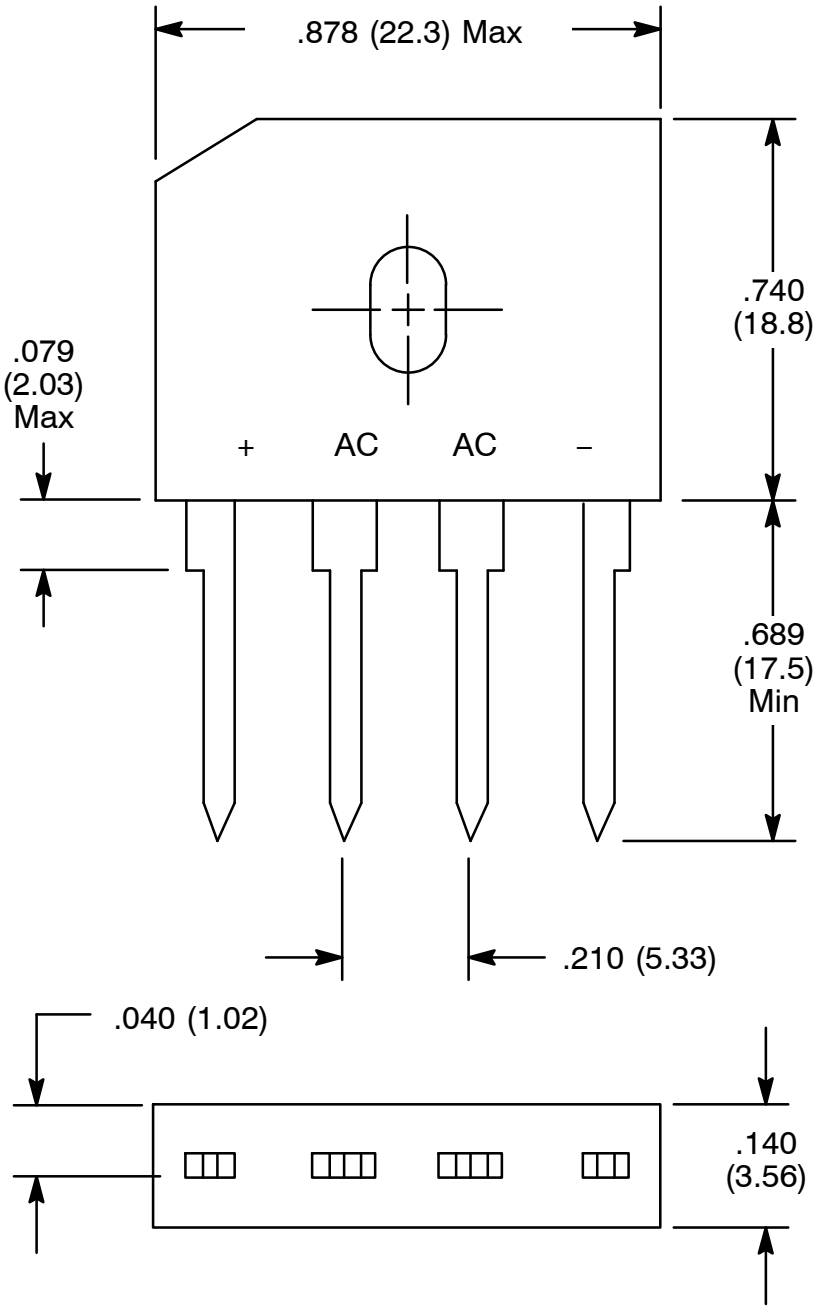
Typical Thermal Resistance, Junction–to–Ambient (Note 2), R_{thJA} 18K/W

Typical Thermal Resistance, Junction–to–case (Note 3), R_{thJC} 3K/W

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

Note 2. Mounted on PCB at 9.5mm lead length with $12mm^2$ copper pads.

Note 3. Mounted on a 7.5 x 7.5 x 3.0cm thick AL plate.


.878 (22.3) Max
.740
(18.8)
.079
(2.03)
Max
+
AC
AC
–
.689
(17.5)
Min
.210 (5.33)
.040 (1.02)
.140
(3.56)