ELECTRONICS, INC.
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RoHS 2002/95/EC

NTE53016 thru NTE53020
Silicon Bridge Rectifier, 50A

Features:
- Diffused Junction
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Electrically Isolated, Low Profile Epoxy Case for Maximum Heat Dissipation
- Mounting: Through Hole with #10 Screw

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

Maximum Recurrent Peak Reverse Voltage, V_{RRM}
- NTE53016 . . . . . 200V
- NTE53018 . . . . . 600V
- NTE53020 . . . . . 1000V

Working Peak Reverse Voltage, V_{RWM}
- NTE53016 . . . . . 200V
- NTE53018 . . . . . 600V
- NTE53020 . . . . . 1000V

Maximum RMS Bridge Input Voltage, V_{RMS}
- NTE53016 . . . . . 140V
- NTE53018 . . . . . 420V
- NTE53020 . . . . . 700V

Maximum DC Blocking Voltage, V_{DC}
- NTE53016 . . . . . 200V
- NTE53018 . . . . . 600V
- NTE53020 . . . . . 1000V

Maximum Average Forward Rectified Output Current (T_A = +60°C), $I_{O(AV)}$ 50A

Peak Forward Surge Current (8.3ms single half wave superimposed on rated load), I_{FSM} . . . 450A

Maximum Forward Voltage Drop (Per element at 25A), V_F 1.1V

Maximum Reverse Current at Rated DC Blocking Voltage Per Element, I_R
- T_A = +25°C 50μA
- T_A = +125°C 500μA

I^2t Rating for Fusing (t < 8.3ms), I^2t . . . . . $800A^2s$

Typical Junction Capacitance (Note 2), C_j 400pF

Typical Thermal Resistance, Junction–to–Case (Per element, Note 3), R_{thJC} . . . . . 1.6°C/W

RMS Isolation Voltage from Case to Leads, V_{ISO} 2500V

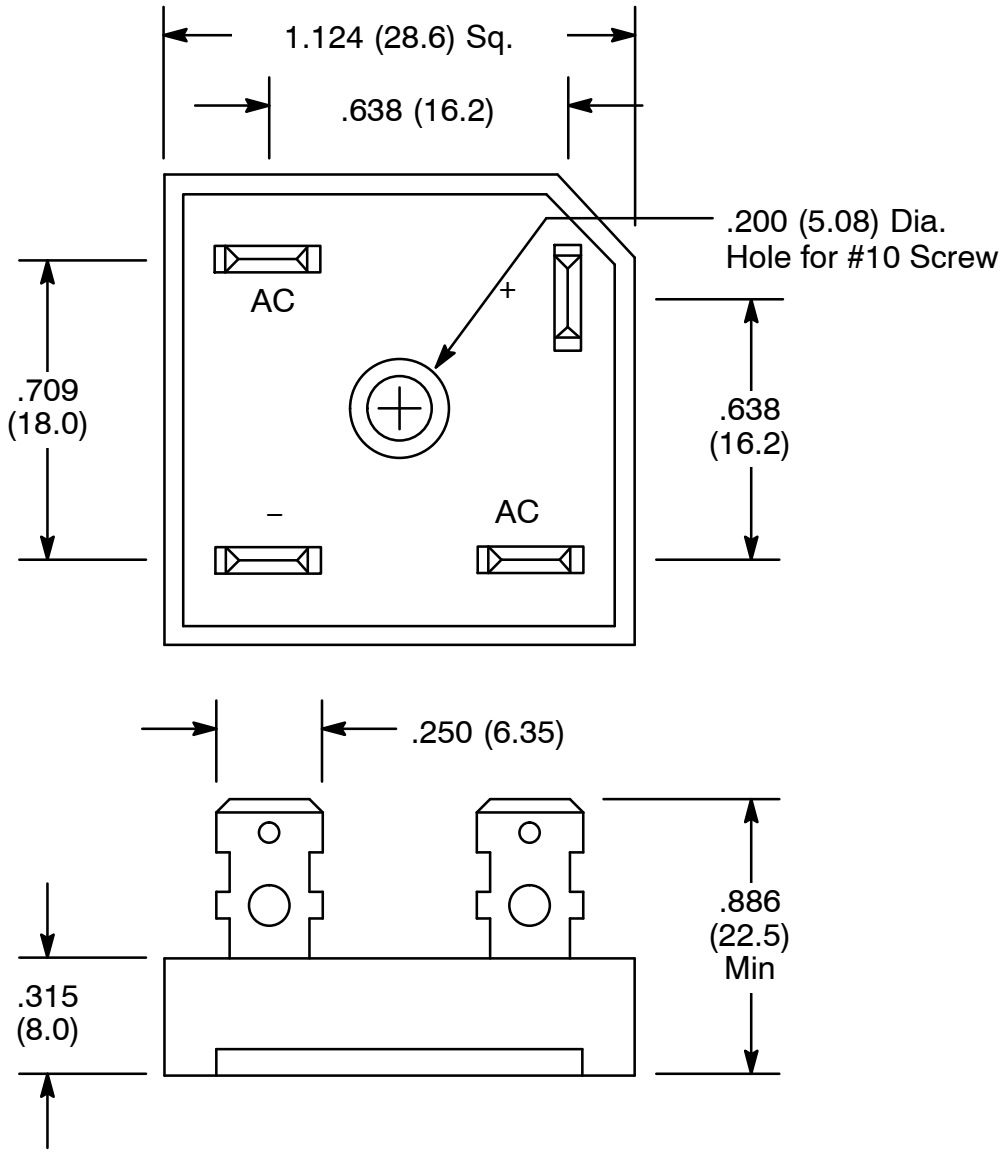
Operating Temperature Range, T_J . . . . . –65° to +150°C

Storage Temperature Range, T_{stg} . . . . . –65° to +150°C

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

Note 2. Measured at 1.0MHz and applied reverse voltage of 4.0VDC.

Note 3. Thermal resistance junction–to–case, mounted on a heatsink.


1.124 (28.6) Sq.
.638 (16.2)
.200 (5.08) Dia.
Hole for #10 Screw
AC
+
.709
(18.0)
.638
(16.2)
–
AC
.250 (6.35)
.886
(22.5)
Min
.315
(8.0)