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## NTE5744 3 Phase Bridge Rectifier Module

**Description:**

The NTE5744 is a powerblock module designed for three-phase full wave rectification and contain six diodes connected in a three-phase bridge configuration. The mounting base of the module is electrically isolated from the semiconductor elements for simple heatsink construction.

**Applications:**

- Inverters for AC Motors
- Power Supply Units for DC Motors
- DC Power Supply Units for Battery Chargers
- General Purpose DC Power Supply Units

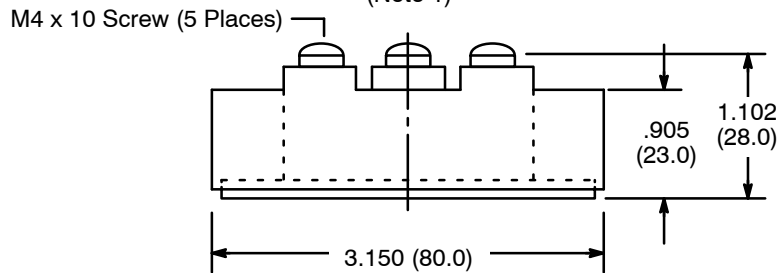
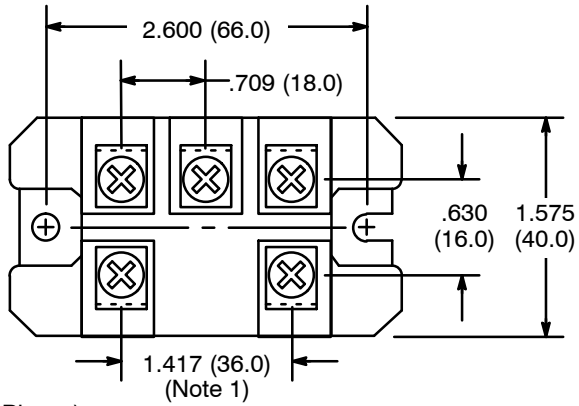
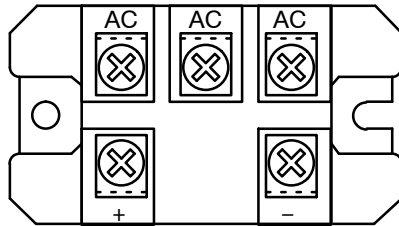
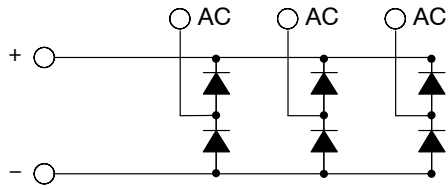
**Absolute Maximum Ratings:**

Repetitive Peak Reverse Voltage,  $V_{RRM}$  ..... 800V  
 Non-Repetitive Peak Reverse Voltage,  $V_{RSM}$  ..... 880V  
 Average Output Current (50/60Hz, Sinewave,  $T_C = +103^{\circ}C$ ),  $I_D$  ..... 100A  
 Surge Forward Current (Rated Load Conditions),  $I_{FSM}$  ..... 1200A  
 Maximum  $I^2t$  for Fusing (Rated Load Conditions),  $I^2t$  ..... 6000A<sup>2</sup>sec  
 Operating Junction Temperature Range,  $T_J$  .....  $-40^{\circ}$  to  $+150^{\circ}C$   
 Storage Temperature Range,  $T_{stg}$  .....  $-40^{\circ}$  to  $+125^{\circ}C$   
 Isolation Breakdown Voltage (RMS, Main Terminal to Case, 1sec),  $V_{ISO}$  ..... 2500V  
 Thermal Resistance, Junction-to-Case,  $R_{thJC}$   
 (50/60Hz Sinewave, Thermal Resistance for Total Loss) .....  $0.22^{\circ}C/W$   
 Thermal Resistance (With Thermal Compound),  $R_{thCF}$  .....  $0.06^{\circ}C/W$

**Electrical Characteristics:**

Parameter	Symbol	Test Conditions	Rating	Unit
Maximum Repetitive Peak Reverse Current	$I_{RRM}$	$T_J = +150^{\circ}C$ , $V_{RRM} = 800V$	10	mA
Maximum Forward Voltage Drop	$V_{FM}$	$T_J = +25^{\circ}C$ , $I_{FM} = 100A$	1.15	V

### Circuit Diagram



**Note 1.** Screws may be closer together at: 1.190 (30.0)