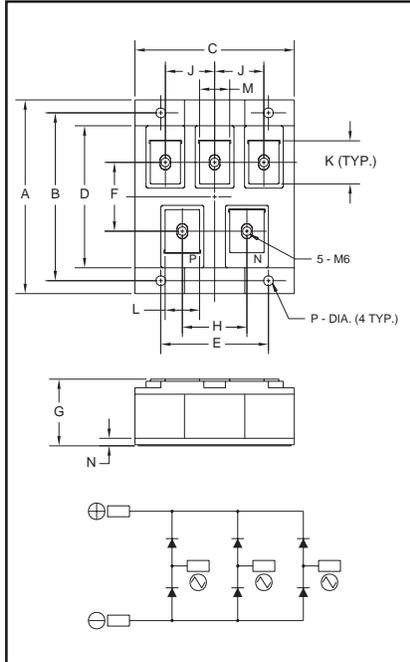


**Three-Phase  
Diode Bridge Modules**  
**150 Amperes/1200-1600 Volts**



**Outline Drawing**

| Dimension | Inches                         | Millimeters |
|-----------|--------------------------------|-------------|
| A         | 3.54                           | 90.0        |
| B         | 3.07                           | 78.0        |
| C         | 2.91                           | 74.0        |
| D         | 2.60                           | 66.0        |
| E         | 1.97                           | 50.0        |
| F         | 1.26                           | 32.0        |
| G         | 1.22                           | 31.0        |
| H         | 1.18                           | 30.0        |
| J         | 0.90                           | 23.0        |
| K         | 0.79                           | 20.0        |
| L         | 0.63                           | 16.0        |
| M         | 0.55                           | 14.0        |
| N         | .26                            | 6.5         |
| P         | 0.177±0.004 Dia. Dia. 4.50±0.1 |             |



**ME601215, ME601615**  
**Three-Phase Diode Bridge Modules**  
150 Amperes/1200-1600 Volts

**Description:**

Powerex Three-Phase Diode Bridge Modules are designed for use in three-phase bridge applications. The modules are isolated consisting of six rectifier diodes.

**Features:**

- Isolated Mounting
- Planar Chips

**Applications:**

- Inverters
- DC Power Supplies
- AC Motor Control Front End

**Ordering Information:**

Select the complete eight digit module part number you desire from the table below. Example: ME601215 is a 1200 Volt, 150 Ampere Three-Phase Diode Bridge Module.

| Type | Voltage<br>Volts (x100) | Current Rating<br>Amperes (x10) |
|------|-------------------------|---------------------------------|
| ME60 | 12                      | 15                              |
|      | 16                      |                                 |



Powerex, Inc., 200 Hillis Street, Youngwood, Pennsylvania 15697-1800 (724) 925-7272

**ME601215, ME601615**  
**Three-Phase Diode Bridge Modules**  
150 Amperes/1200-1600 Volts

### Absolute Maximum Ratings

| Characteristics   | Symbol      | ME601215   | ME601615   | Units      |
|---|-------------|------------|------------|------------|
| Peak Reverse Blocking Voltage                                       | $V_{RRM}$   | 1200       | 1600       | Volts      |
| Transient Peak Reverse Blocking Voltage (Non-Repetitive), $t < 5ms$ | $V_{RSM}$   | 1350       | 1700       | Volts      |
| DC Reverse Blocking Voltage   | $V_{R(DC)}$ | 960        | 1280       | Volts      |
| DC Output Current, $T_C = 97^\circ C$                               | $I_O$       | 150        | 150        | Amperes    |
| Peak One-Cycle Surge (Non-Repetitive) On-State Current (60Hz)       | $I_{FSM}$   | 1500       | 1500       | Amperes    |
| Peak One-Cycle Surge (Non-Repetitive) On-State Current (50Hz)       | $I_{FSM}$   | 1365       | 1365       | Amperes    |
| $I^2t$ (for Fusing), 8.3 milliseconds                               | $I^2t$      | 9400       | 9400       | $A^2sec$   |
| Storage Temperature   | $T_{STG}$   | -40 to 125 | -40 to 125 | $^\circ C$ |
| Operating Temperature   | $T_j$       | -40 to 150 | -40 to 150 | $^\circ C$ |
| Maximum Mounting Torque M4 Mounting Screw                           | —           | 12         | 12         | in.-lb.    |
| Maximum Mounting Torque M4 Terminal Screw                           | —           | 12         | 12         | in.-lb.    |
| Module Weight (Typical)   | —           | 405        | 405        | Grams      |
| V Isolation   | $V_{RMS}$   | 2500       | 2500       | Volts      |



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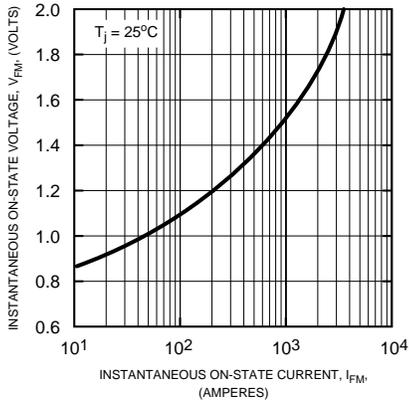
**ME601215, ME601615**  
**Three-Phase Diode Bridge Modules**  
150 Amperes/1200-1600 Volts

**Electrical and Thermal Characteristics,  $T_j = 25^\circ\text{C}$  unless otherwise specified**

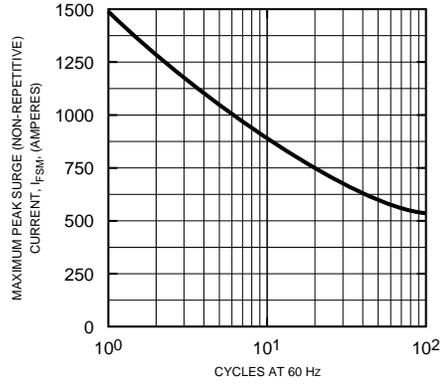
| Characteristics                               | Symbol            | Test Conditions                                      | ME601215/ME601615 | Units                 |
|---|-------------------|--|-------------------|-----------------------|
| <b>Blocking State Maximums</b>                |                   |  |                   |                       |
| Reverse Leakage Current, Peak                 | $I_{RRM}$         | $T_j = 150^\circ\text{C}$ , $V_{RRM} = \text{Rated}$ | 15                | mA                    |
| <b>Conducting State Maximums</b>              |                   |  |                   |                       |
| Peak On-State Voltage                         | $V_{FM}$          | $I_{FM} = 150\text{A}$                               | 1.35              | Volts                 |
| <b>Thermal Maximums</b>                       |                   |  |                   |                       |
| Thermal Resistance, Junction-to-Case          | $R_{\theta(J-C)}$ | Per Module   | 0.15              | $^\circ\text{C/Watt}$ |
| Thermal Resistance, Case-to-Sink (Lubricated) | $R_{\theta(C-S)}$ | Per Module   | 0.04              | $^\circ\text{C/Watt}$ |

**ME601215, ME601615**  
**Three-Phase Diode Bridge Modules**  
 150 Amperes/1200-1600 Volts

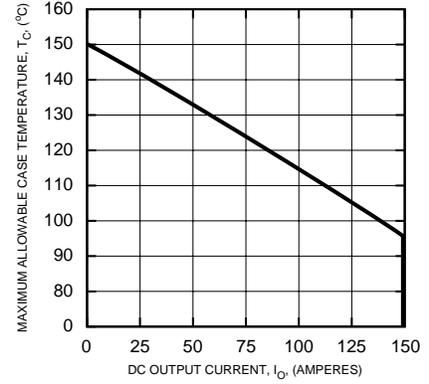
**MAXIMUM ON-STATE CHARACTERISTICS**



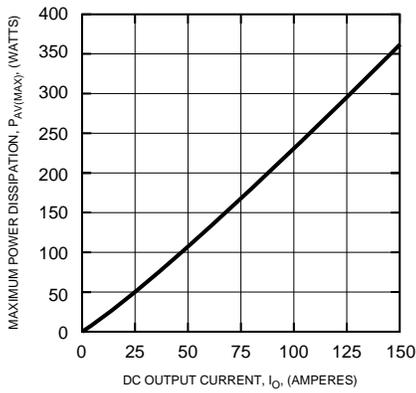
**MAXIMUM ALLOWABLE PEAK SURGE (NON-REPETITIVE) CURRENT**



**MAXIMUM ALLOWABLE CASE TEMPERATURE**



**MAXIMUM ON-STATE POWER DISSIPATION**



**TRANSIENT THERMAL IMPEDANCE CHARACTERISTICS (JUNCTION-TO-CASE)**

