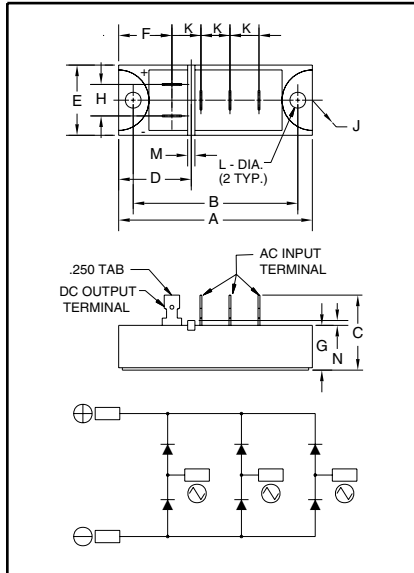


## Three-Phase Diode Bridge Modules 30 Amperes/1200-1600 Volts



**Outline Drawing**

Dimension	Inches	Millimeters
A	3.150	80
B	2.677±0.012	68±0.3
C	1.220	31
D	1.181	30
E	1.142	29
F	0.866	22
G	0.728	18.5
H	0.512	13
J	0.492 R	R12.5
K	0.472	12
L	0.256±0.008 Dia.	Dia. 6.5±0.2
M	0.118	3
N	0.079	2



**ME701203, ME701603**  
**Three-Phase Diode Bridge Modules**  
30 Amperes/1200-1600 Volts

### Description:

Powerex Three-Phase Diode Bridge Modules are designed for use in three-phase bridge application. The modules are isolated consisting of six rectifier diodes. These ME70 Modules have been tested and recognized by Underwriters Laboratories (QQX2 Power Switching Semiconductors).

### Features:

- Isolated Mounting
- Planar Chips
- UL Recognized

### 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: ME701603 is a 1600 Volt, 30 Ampere Three-Phase Diode Bridge Module.

Type	Voltage Volts (x100)	Current Rating Amperes (x10)
ME70	12	03
	16	



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

**ME701203, ME701603**  
**Three-Phase Diode Bridge Modules**  
30 Amperes/1200-1600 Volts

### Absolute Maximum Ratings

Characteristics	Symbol	ME701203	ME701603	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, $T_C = 103^\circ C$	$I_O$	30	30	Amperes
Peak One-Cycle Surge (Non-Repetitive) On-State Current (60Hz)	$I_{FSM}$	300	300	Amperes
Peak One-Cycle Surge (Non-Repetitive) On-State Current (50Hz)	$I_{FSM}$	275	275	Amperes
$I^2t$ (for Fusing), 8.3 milliseconds	$I^2t$	375	375	A <sup>2</sup> sec
Storage Temperature	$T_{STG}$	-40 to 125	-40 to 125	°C
Operating Temperature	$T_j$	-40 to 150	-40 to 125	°C
Maximum Mounting Torque M6 Mounting Screw	—	26	26	in.-lb.
Module Weight (Typical)	—	120	120	Grams
V Isolation	$V_{RMS}$	2500	2500	Volts



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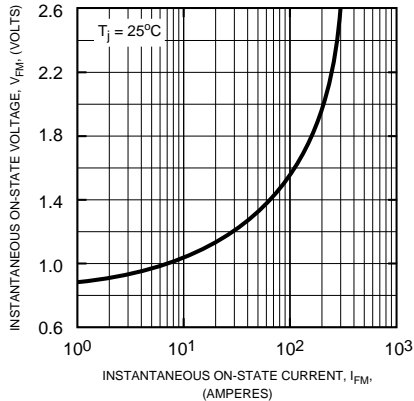
**ME701203, ME701603**  
**Three-Phase Diode Bridge Modules**  
30 Amperes/1200-1600 Volts

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

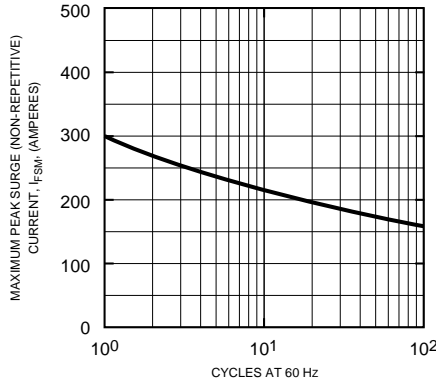
Characteristics	Symbol	Test Conditions	ME701203/ME701603	Units
<b>Blocking State Maximums</b>				
Reverse Leakage Current, Peak	$I_{RRM}$	$T_j = 150^\circ\text{C}$ , $V_{RRM} = \text{Rated}$	2.0	mA
<b>Conducting State Maximums</b>				
Peak On-State Voltage	$V_{FM}$	$I_{FM} = 30\text{A}$	1.25	Volts
<b>Thermal Maximums</b>				
Thermal Resistance, Junction-to-Case	$R_{\theta(J-C)}$	Per Module	0.7	$^\circ\text{C/Watt}$
Thermal Resistance, Case-to-Sink (Lubricated)	$R_{\theta(C-S)}$	Per Module	0.1	$^\circ\text{C/Watt}$

**ME701203, ME701603**  
**Three-Phase Diode Bridge Modules**  
 30 Amperes/1200-1600 Volts

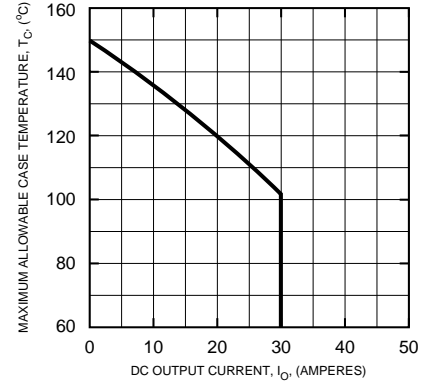
**MAXIMUM ON-STATE CHARACTERISTICS**



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



**MAXIMUM ALLOWABLE CASE TEMPERATURE**



**MAXIMUM ON-STATE POWER DISSIPATION**

