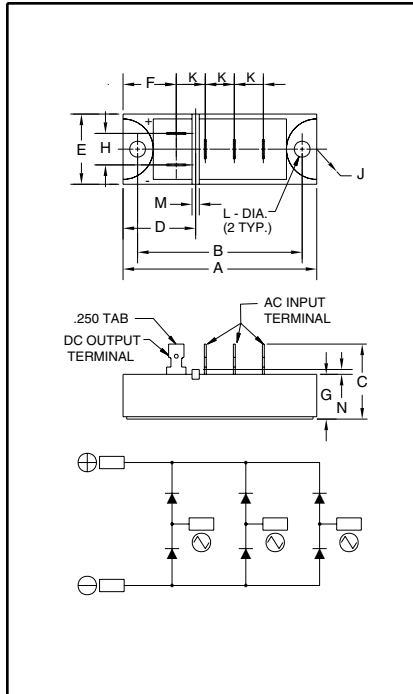


## Three-Phase Diode Bridge Modules 20 Amperes/1200-1600 Volts



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




ME701202, ME701602  
Three-Phase Diode Bridge Modules  
20 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. 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: ME701602 is a 1600 Volt, 20 Ampere Three-Phase Diode Bridge Module.

Type	Voltage Volts (x100)	Current Rating Amperes (x10)
ME70	12	02
	16	



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

**ME701202, ME701602**  
**Three-Phase Diode Bridge Modules**  
20 Amperes/1200-1600 Volts

### Absolute Maximum Ratings

Characteristics	Symbol	ME701202	ME701602	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, $T_C = 100^\circ C$	$I_O$	20	20	Amperes
Peak One-Cycle Surge (Non-Repetitive) On-State Current (60Hz)	$I_{FSM}$	200	200	Amperes
Peak One-Cycle Surge (Non-Repetitive) On-State Current (50Hz)	$I_{FSM}$	180	180	Amperes
$I^2t$ (for Fusing), 8.3 milliseconds	$I^2t$	167	167	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 150	°C
Maximum Mounting Torque M6 Mounting Screw	—	26	26	in.-lb.
Module Weight (Typical)	—	117	117	Grams
V Isolation	$V_{RMS}$	2500	2500	Volts



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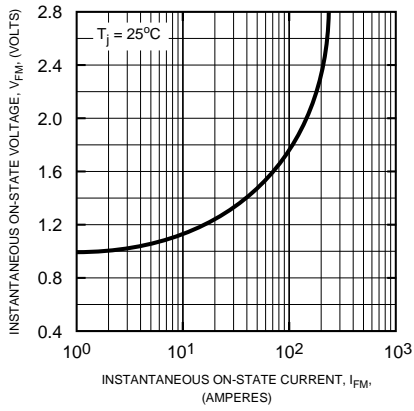
ME701202, ME701602  
Three-Phase Diode Bridge Modules  
20 Amperes/1200-1600 Volts

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

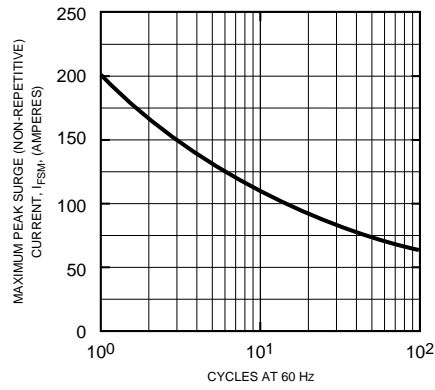
Characteristics	Symbol	Test Conditions	ME701202/ME701602	Units
<b>Blocking State Maximums</b>				
Reverse Leakage Current, Peak	$I_{RRM}$	$T_j = 150^\circ\text{C}$ , $V_{RRM} = \text{Rated}$	2.0	mA
<b>Conducting State Maximums</b>				
Peak On-State Voltage	$V_{FM}$	$I_{FM} = 20\text{A}$	1.25	Volts
<b>Thermal Maximums</b>				
Thermal Resistance, Junction-to-Case	$R_{\theta(J-C)}$	Per Module	1.0	$^\circ\text{C/Watt}$
Thermal Resistance, Case-to-Sink (Lubricated)	$R_{\theta(C-S)}$	Per Module	0.1	$^\circ\text{C/Watt}$

**ME701202, ME701602**  
**Three-Phase Diode Bridge Modules**  
 20 Amperes/1200-1600 Volts

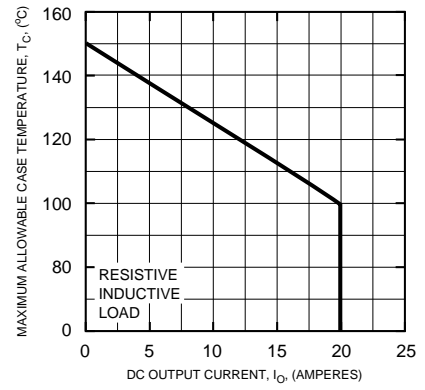
**MAXIMUM ON-STATE CHARACTERISTICS**



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



**MAXIMUM ALLOWABLE CASE TEMPERATURE**



**MAXIMUM ON-STATE POWER DISSIPATION**

