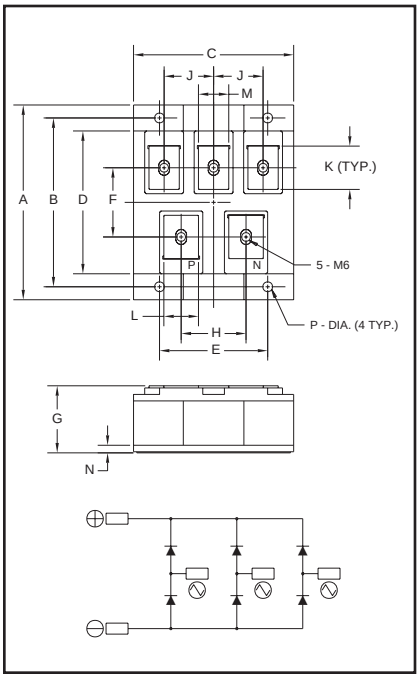
Powerex, Inc., 200 Hillis Street, Youngwood, Pennsylvania 15697-1800 (724) 925-7272

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 Volts (x100)	Current Rating Amperes (x10)
ME60	12	15
	16	

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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°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	°C
Operating Temperature	T_j	-40 to 150	-40 to 150	°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

ME601215, ME601615
Three-Phase Diode Bridge Modules
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Electrical and Thermal Characteristics, T_j = 25°C unless otherwise specified

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

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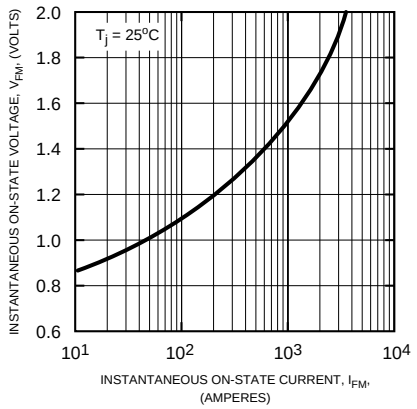
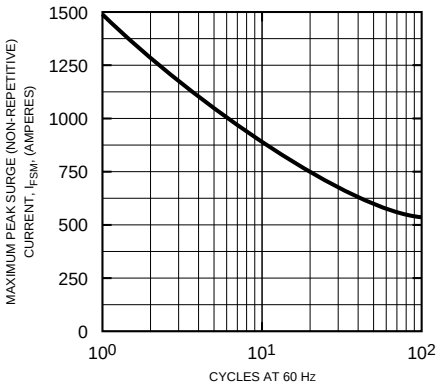
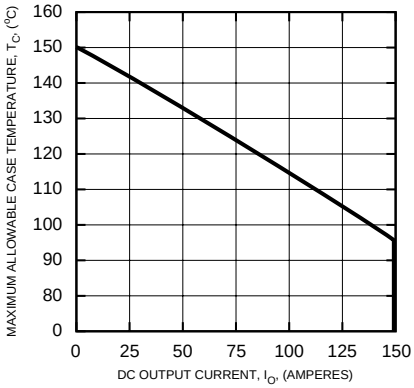
MAXIMUM ON-STATE CHARACTERISTICS



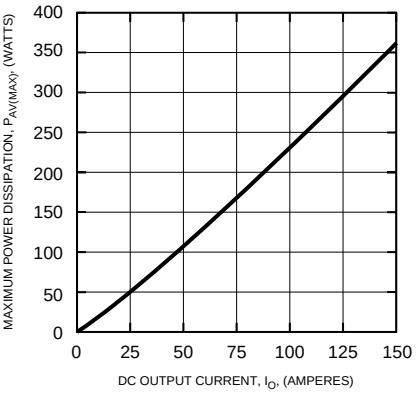
MAXIMUM ALLOWABLE PEAK SURGE (NON-REPETITIVE) CURRENT



MAXIMUM ALLOWABLE CASE TEMPERATURE



MAXIMUM ON-STATE POWER DISSIPATION



TRANSIENT THERMAL IMPEDANCE CHARACTERISTICS (JUNCTION-TO-CASE)