



### Description:

Powerex Three-Phase Full Wave Bridge Module designed specially for customer applications. Each module consists of six diodes connected in a three-phase bridge configuration. The modules are isolated for easy mounting with other components on a common heatsink.

### Features:

- Fast Recovery Diode
- Copper Base Plate
- Isolated Mounting
- (2) 100 Amps Chips per Bridge Element

Dimensions	Inches	Millimeters
A	4.02	102.0
B	3.15±0.01	80.0±0.25
C	3.58	91.0
D	2.91±0.01	74.0±0.25
E	0.43	11.0
F	0.79	20.0
G	0.39	10.0
H	0.75	19.1
J	0.79	20.0

Dimensions	Inches	Millimeters
K	0.05	1.25
L	0.74	18.7
M	1.55	39.3
N	0.12	3.05
P	0.32	8.1
Q	1.02	26.0
R	0.47	11.85
S	0.22 Dia.	5.5 Dia.

**Absolute Maximum Ratings,  $T_J=25^\circ\text{C}$  unless otherwise specified**

Characteristics	Conditions	Symbol	QRE0620001	Units
Repetitive Peak Reverse Blocking Voltage	-	$V_{RRM}$	600	Volts
Non-Repetitive Peak Reverse Blocking Voltage	-	$V_{RSM}$	$V_{RRM} + 100$	Volts
DC Output Current	Three phase full wave, $T_C=96^\circ\text{C}$	$I_O$	200	Amperes
Peak Half Cycle Non-Repetitive Surge Current	$t = 8.3\text{mS}$ , 100% $V_{RRM}$ Reapplied	$I_{FSM}$	1670	Amperes
$I^2t$ for Fusing for One Cycle	$t = 8.3\text{mS}$ , 100% $V_{RRM}$ Reapplied	$I^2t$	11620	$\text{A}^2\text{sec}$
Operating Junction Temperature	-	$T_J$	-40 to 150	$^\circ\text{C}$
Storage Temperature	-	$T_{STG}$	-40 to 125	$^\circ\text{C}$
Maximum Mounting Torque, M5 Mounting Screw	-	-	31	In.-lb.
Maximum Terminal Torque, M4 Terminal Screw	-	-	15	In.-lb.
Module Weight (Typical)	-	-	570	Grams
V Isolation	60 Hz, circuit to base, all terminals shorted, $t = 1 \text{ sec}$	$V_{RMS}$	3000	Volts

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

Characteristics	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Peak Reverse Leakage Current	$I_{RRM}$	Rated $V_{RRM}$	-	-	5	mA
Peak On-State Voltage	$V_{FM}$	$I_{FM}=200\text{A}$ $I_{FM}=67\text{A}$	-	2.0 1.3	2.8 -	Volts
Reverse Recovery Time	$t_{rr}$	$I_{FM} = 200\text{A}$ , $di/dt = -400\text{A}/\mu\text{s}$	-	-	110	ns
Reverse Recovery Charge	$Q_{rr}$	$I_{FM} = 200\text{A}$ , $di/dt = -400\text{A}/\mu\text{s}$	-	0.54	-	$\mu\text{C}$

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

Characteristics	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Thermal Resistance, Junction to Case	$R_{\theta JC}$	Per Module	-	-	0.10	$^\circ\text{C}/\text{Watt}$
Thermal Resistance, Case to Sink Lubricated	$R_{\theta CS}$	Per Module	-	0.018	-	$^\circ\text{C}/\text{Watt}$

