Excellent Integrated System Limited

Stocking Distributor

Click to view price, real time Inventory, Delivery & Lifecycle Information:

Powerex Inc.
CDD11610

For any questions, you can email us directly:
sales@integrated-circuit.com

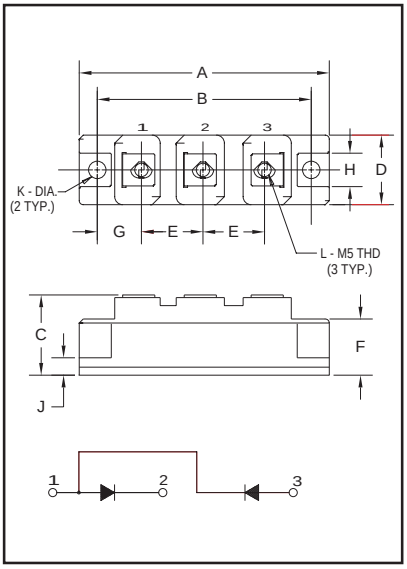
Distributor of Powerex Inc.: Excellent Integrated System Limited
Datasheet of CDD11610 - DIODE MODULE 1.6KV 100A POWRBLOK
Contact us: sales@integrated-circuit.com Website: www.integrated-circuit.com

POWEREX

CDD11210
CDD11610

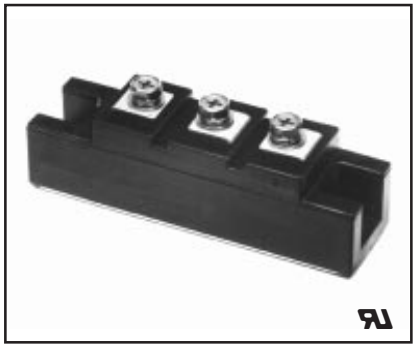
Powerex, Inc., 200 Hillis Street, Youngwood, Pennsylvania 15697-1800 (724) 925-7272

Dual Diode
POW-R-BLOK™ Modules
100 Amperes/1200-1600 Volts



Outline Drawing

Dimension	Inches	Millimeters
A	3.681 Max.	93.5 Max.
B	3.150	80
C	1.181 Max.	30 Max.
D	1.024 Max.	26 Max.
E	0.906	23
F	0.827	21
G	0.650	16.5
H	0.492	12.5
J	0.256	6.5
K	0.256 Dia.	Dia. 6.5
L	M5 Metric	M5



CDD11210, CDD11610
Dual Diode
POW-R-BLOK™ Modules
100 Amperes/1200-1600 Volts

Description:
Powerex Dual Diode POW-R-BLOK™ Modules are designed for use in applications requiring AC to DC rectification in isolated packaging. The modules are isolated for easy mounting with other components on common heatsinks. POW-R-BLOK™ has been tested and recognized by Underwriters Laboratories (QQQX2 Power Switching Semiconductors).

Features:

- ☐ Isolated Mounting
- ☐ Glass Passivated Chips
- ☐ Metal Baseplate
- ☐ Low Thermal Impedance
- ☐ UL Recognized

Applications:

- ☐ Battery Supplies
- ☐ AC and DC Motor Power Supplies

Ordering Information:
Select the complete eight digit module part number you desire from the table below.
Example: CDD11210 is a 1200 Volt, 100 Ampere Dual Diode POW-R-BLOK™ Module.

Type	Voltage Volts (x100)	Current Rating Amperes (x10)
CDD1	12 16	10

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100 Amperes/1200-1600 Volts

Absolute Maximum Ratings

Characteristics	Symbol	CDD11210	CDD11610	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
RMS On-State Current	$I_{F(RMS)}$	155	155	Amperes
Average On-State Current, T_C = 87°C	$I_{F(AV)}$	100	100	Amperes
Peak One-Cycle Surge (Non-Repetitive) On-State Current (60Hz)	I_{FSM}	2000	2000	Amperes
Peak One-Cycle Surge (Non-Repetitive) On-State Current (50Hz)	I_{FSM}	1800	1800	Amperes
I^2t (for Fusing), 8.3 milliseconds	I^2t	16500	16500	A^2sec
Storage Temperature	T_{STG}	-40 to 125	-40 to 125	°C
Operating Temperature	T_j	-40 to 125	-40 to 125	°C
Maximum Mounting Torque M6 Mounting Screw	—	26	26	in.-lb.
Maximum Mounting Torque M5 Terminal Screw	—	17	17	in.-lb.
Module Weight (Typical)	—	160	160	Grams
V Isolation	V_{RMS}	2500	2500	Volts

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Electrical and Thermal Characteristics, T_j = 25°C unless otherwise specified

Characteristics	Symbol	Test Conditions	CDD11210/CDD11610	Units
Blocking State Maximums				
Reverse Leakage Current, Peak	I_{RRM}	T_j = 125°C, V_{RRM} = Rated	15	mA
Conducting State Maximums				
Peak On-State Voltage	V_{FM}	I_{FM} = 320A	1.35	Volts
Thermal Maximums				
Thermal Resistance, Junction-to-Case	$R_{\theta(J-C)}$	Per Module	0.3	°C/Watt
Thermal Resistance, Case-to-Sink (Lubricated)	$R_{\theta(C-S)}$	Per Module	0.2	°C/Watt

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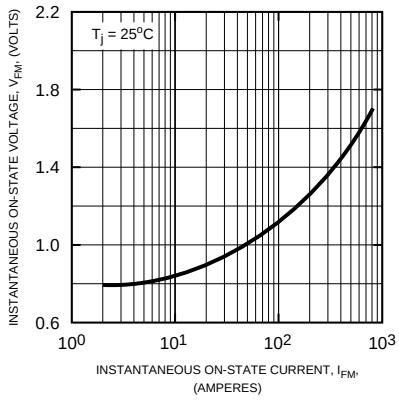
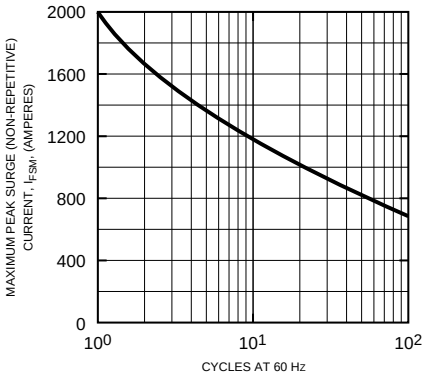
100 Amperes/1200-1600 Volts

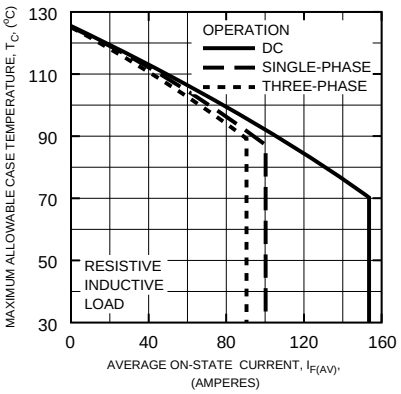
MAXIMUM ON-STATE CHARACTERISTICS



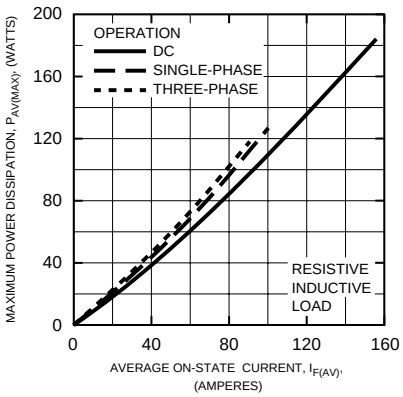
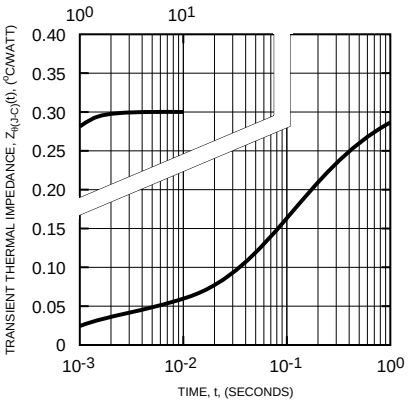
MAXIMUM ALLOWABLE PEAK SURGE (NON-REPETITIVE) CURRENT



MAXIMUM ALLOWABLE CASE TEMPERATURE



MAXIMUM ON-STATE POWER DISSIPATION



TRANSIENT THERMAL IMPEDANCE CHARACTERISTICS (JUNCTION-TO-CASE)