

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

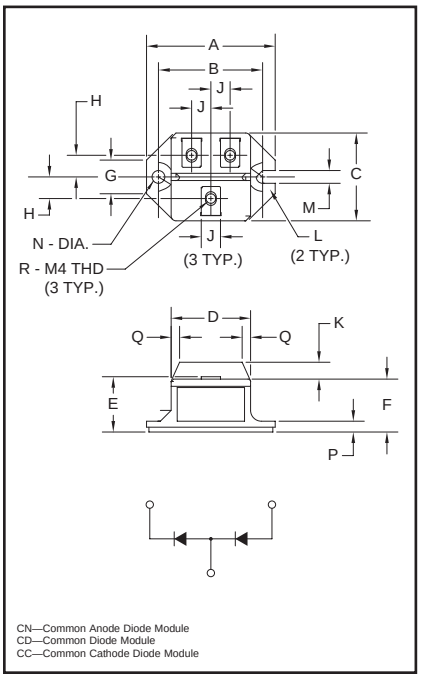
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Powerex, Inc., 200 Hillis Street, Youngwood, Pennsylvania 15697-1800 (724) 925-7272

Fast Recovery Dual Diode Modules

50 Amperes/600-1200 Volts



Outline Drawing

Dimension	Inches	Millimeters
A	2.106	53.5
B	1.705±0.008	43.3±0.2
C	1.437	36.5
D	1.299	33
E	0.925	23.5
F	0.866	22
G	0.551	14
H	0.354	9
J	0.315	8
K	0.276	7
L	0.236 R	R6
M	0.209	5.3
N	0.209 Dia.	Dia. 5.3
P	0.177	4.5
Q	0.138	3.5
R	M4 Metric	M4



CN24_ _50, CD24_ _50, CC24_ _50
Fast Recovery Dual Diode Modules
50 Amperes/600-1200 Volts

Description:
Powerex Fast Recovery Dual Diode Modules are designed for use in applications requiring fast switching. The modules are isolated for easy mounting with other components on common heatsinks.

Features:

- ☐ Isolated Mounting
- ☐ Planar Chips

Applications:

- ☐ Free Wheeling

Ordering Information:
Select the complete eight digit module part number you desire from the table below.
Example: CN241250 is a 1200 Volt, 50 Ampere Fast Recovery Common AnodeDiode Module.

Type	Voltage Volts (x100)	Current Rating Amperes (50)
CN24	06	50
CD24	12	

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Absolute Maximum Ratings

Characteristics	Symbol	CN240650 CD240650 CC240650	CN241250 CD241250 CC241250	Units
Peak Reverse Blocking Voltage	V_{RRM}	600	1200	Volts
Transient Peak Forward Blocking Voltage (Non-Repetitive), t < 5ms	V_{RSM}	720	1350	Volts
DC Reverse Blocking Voltage	$V_{R(DC)}$	480	960	Volts
DC Output Current, T_C = 105°C	$I_{F(DC)}$	50	50	Amperes
Peak One-Cycle Surge (Non-Repetitive) On-State Current (60Hz)	I_{FSM}	1000	1000	Amperes
Peak One-Cycle Surge (Non-Repetitive) On-State Current (50Hz)	I_{FSM}	910	910	Amperes
I^2t (for Fusing), 8.3 milliseconds	I^2t	4165	4165	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 M5 Mounting Screw	—	17	17	in.-lb.
Maximum Mounting Torque M4 Terminal Screw	—	12	12	in.-lb.
Module Weight (Typical)	—	90	90	Grams
V Isolation	V_{RMS}	2500	2500	Volts

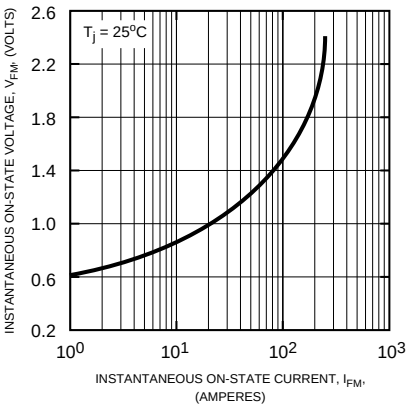
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Electrical and Thermal Characteristics, T_j = 25°C unless otherwise specified

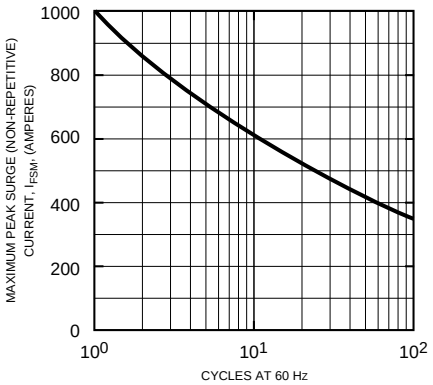
Characteristics	Symbol	Test Conditions	CN24_ _50 CD24_ _50 CC24_ _50	Units
Blocking State Maximums				
Reverse Leakage Current, Peak	I_{RRM}	T_j = 150°C, V_{RRM} = Rated	10	mA
Conducting State Maximums				
Peak On-State Voltage	V_{FM}	I_{FM} = 50A	1.5	Volts
Switching Maximums				
Reverse Recovery Time	t_{rr}	I_{FM} = 50A, T_j = 150°C di/dt =-100A/μs, V_R = 1/2V_{RM}	0.8	μs
Reverse Recovery Charge	Q_{rr}	I_{FM} = 50A, T_j = 150°C di/dt =-100A/μs, V_R = 1/2V_{RM}	30	μC
Thermal Maximums				
Thermal Resistance, Junction-to-Case	$R_{\theta(J-C)}$	Per Module	0.6	°C/Watt
Thermal Resistance, Case-to-Sink (Lubricated)	$R_{\theta(C-S)}$	Per Module	0.4	°C/Watt

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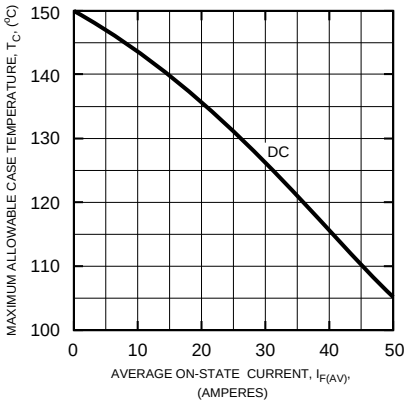
MAXIMUM ON-STATE CHARACTERISTICS



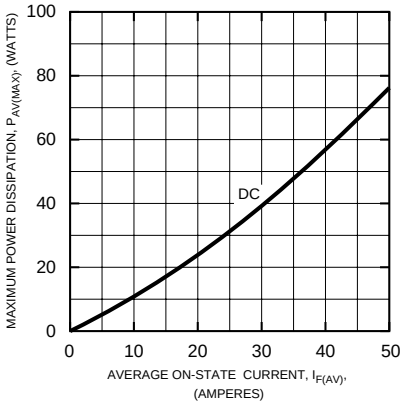
MAXIMUM ALLOWABLE PEAK SURGE (NON-REPETITIVE) CURRENT



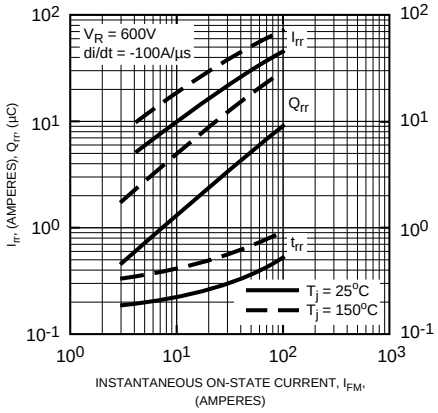
MAXIMUM ALLOWABLE CASE TEMPERATURE



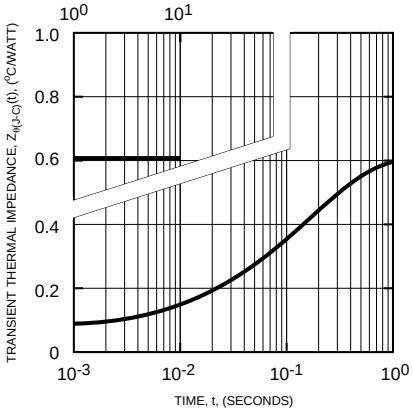
MAXIMUM ON-STATE POWER DISSIPATION



REVERSE RECOVERY CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE CHARACTERISTICS (JUNCTION-TO-CASE)



Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

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