C&D TECHNOLOGIES

Product Data Sheet

3 WATT UNREGULATED WIDE INPUT RANGE DC/DC CONVERTER

PWR72

FEATURES

- **Low Price**
- **High Power Output: 3 Watts**
- **Wide Input Voltage Range: 5VDC To 22VDC**
- **Isolation Barrier 100% Tested Per UL544, VDE750, and CSA C22.2 Dielectric Withstand**
- **Isolation Barrier Leakage Current 100% Tested At 240VAC: 3µA Max**
- **Low Isolation Barrier Capacitance: 10pF**
- **Single-Channel; Dual Output**
- **Six-Sided Shielding**

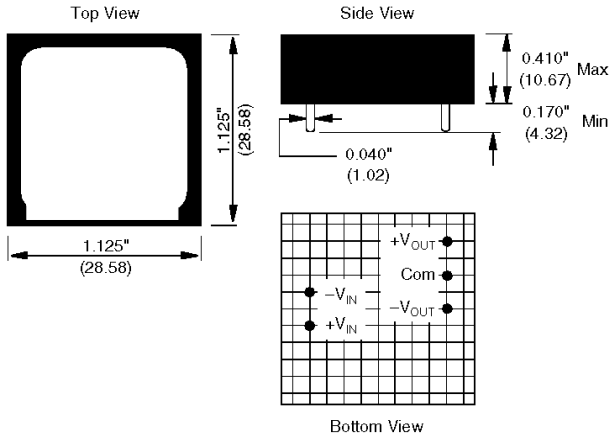
DESCRIPTION

The PWR72 is a 3W, single-channel, dual-output DC/DC converter designed for low cost spot power conversion and ground elimination applications.

It provides a plus and minus output voltage approximately equal to the input voltage magnitude. The PWR72 operates over a wide range of input voltages from 5VDC to 22VDC. Its unregulated outputs give the PWR72 high efficiency power conversion.

Surface-mounted devices and manufacturing processes are used in the PWR72 to give the user a device which is more environmentally rugged than most DC/DC converters. The use of surface-mounted technologies also gives the PWR72 superior isolation voltage. A third advantage of using surface-mounted technologies is low manufacturing cost.

MECHANICAL



NOTES: All dimensions are in inches (millimeters).

GRID: 0.100 inches (2.54 millimeters)

Marked with: specific model ordered, date code, job code.

MATERIAL: Units are encapsulated in a low thermal resistance molding compound which has excellent chemical resistance, wide operating temperature range, and good electrical properties under high humidity environments. Lead material is brass with a solder plated surface to allow ease of solderability.

Internet: http://www.cdpowerelectronics.com

Power Electronics Division, United States
3400 E Britannia Drive, Tucson, Arizona 85706
Phone: 800.547.2537 Fax: 520.770.9369

Power Electronics Division, Europe
C&D Technologies (Power Electronics) Ltd.
132 Shannon Industrial Estate, Shannon, Co. Clare, Ireland
Tel: +353.61.474.133 Fax:+353.61.474.141

ELECTRICAL SPECIFICATIONS

At T_A = +25°C, $+V_{IN}$ = 15VDC, and I_{OUT} = ±100mA unless otherwise noted.

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
INPUT					
Rated Voltage			15		VDC
Voltage Range		5		22	VDC
Input Current	I_{LOAD} = 0		40		mA
	I_{LOAD} = Rated Load		280	330	mA
Ripple Current	I_{LOAD} = 0		15		mApk
	I_{LOAD} = Rated Load		150		mAp-p
ISOLATION					
Rated Voltage		1000			VDC
Test Voltage	60s, 60Hz	3000			Vpk
Resistance			10		GΩ
Capacitance			10		pF
Leakage Current	V_{ISO} = 240VAC, 60Hz			3	µA
OUTPUT					
Rated Voltage			±15		VDC
Voltage Range	I_{OUT} = No Load	±15		±20	VDC
	I_{OUT} = Rated Load	±14.25		±15.75	VDC
Rated Power			3		W
Rated Current				100	mA
	Total of All Outputs			200	mA
Current Range	Each Output	0		±150	mA
	Total of All Outputs	0		300	mA
Line Regulation	10VDC – V_{IN} – 18VDC		1.15		V/V
Load Regulation	0mA – I_{LOAD} – 100mA		15		mV/mA
Ripple Voltage	I_{LOAD} = 0		30		mVpk
	I_{LOAD} = Rated Load			150	mVpk
TEMPERATURE					
Specification		–25		+85	°C
Operating		–40		+100	°C
Storage		–55		+125	°C

ABSOLUTE MAXIMUM RATINGS

Input Voltage	22VDC
Output Short-Circuit Duration	Xs
Internal Power Dissipation	3W
Junction Temperature	+175°C
Package Thermal Resistance	13°C/W
Lead Temperature (Soldering, 10s)	+300°C

ORDERING INFORMATION

PWR 72 /H

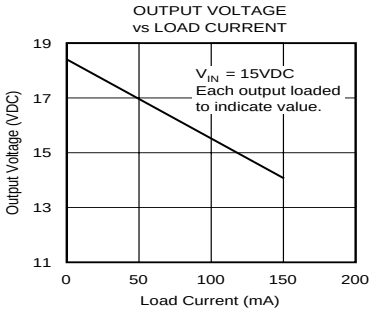
Device Family
PWR indicates DC/DC converter

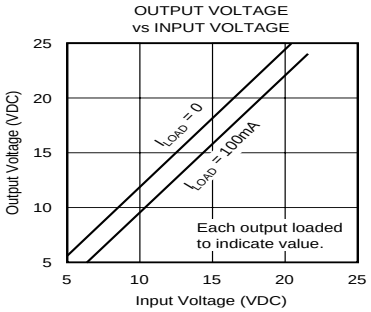
Model Number

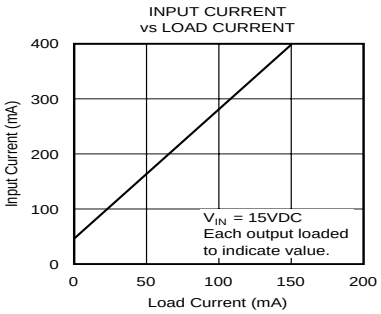
Reliability Screening
No designator indicates standard manufacturing processing

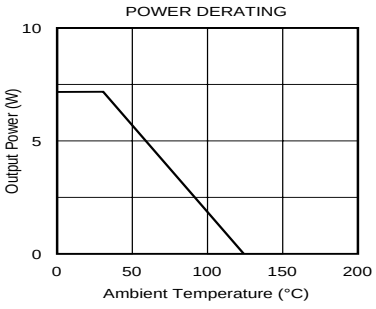
TYPICAL PERFORMANCE CURVES

Typical at T_A = +25°C, nominal input voltage, and rated output current unless otherwise noted.









The information provided herein is believed to be reliable; however, C&D TECHNOLOGIES assumes no responsibility for inaccuracies or omissions. C&D TECHNOLOGIES assumes no responsibility for the use of this information, and all use of such information shall be entirely at the user's own risk. Prices and specifications are subject to change without notice. No patent rights or licenses to any of the circuits described herein are implied or granted to any third party. C&D TECHNOLOGIES does not authorize or warrant any C&D TECHNOLOGIES product for use in life support devices/systems or in aircraft control applications.