

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: 3 μ A Max
- Low Isolation Barrier Capacitance: 10pF
- Single-Channel; Dual Output
- Six-Sided Shielding

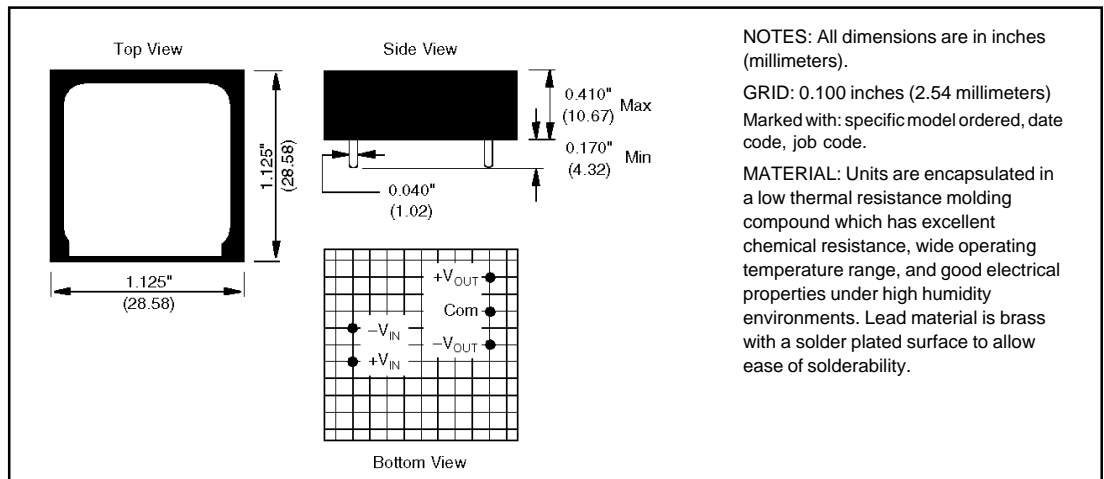
DESCRIPTION

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 $T_A = +25^\circ\text{C}$, $V_{IN} = 15\text{VDC}$, and $I_{OUT} = \pm 100\text{mA}$ unless otherwise noted.

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

ABSOLUTE MAXIMUM RATINGS

Input Voltage	22V _{DC}
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

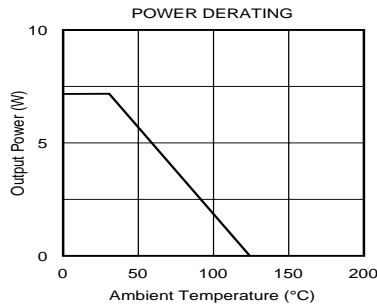
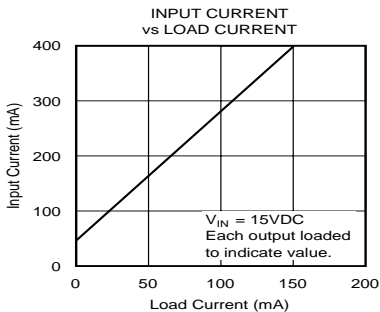
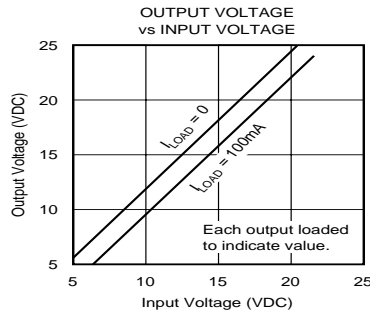
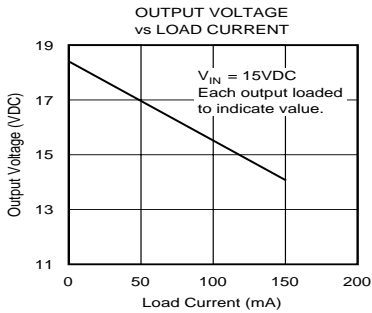
Device Family _____
 PWR indicates DC/DC converter

Model Number _____

Reliability Screening _____
 No designator indicates standard manufacturing processing

TYPICAL PERFORMANCE CURVES

Typical at $T_A = +25^\circ\text{C}$, 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.