

## 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 $\mu$ A Max
- Low Isolation Barrier Capacitance: 10pF
- Single-Channel; Dual Output
- Six-Sided Shielding

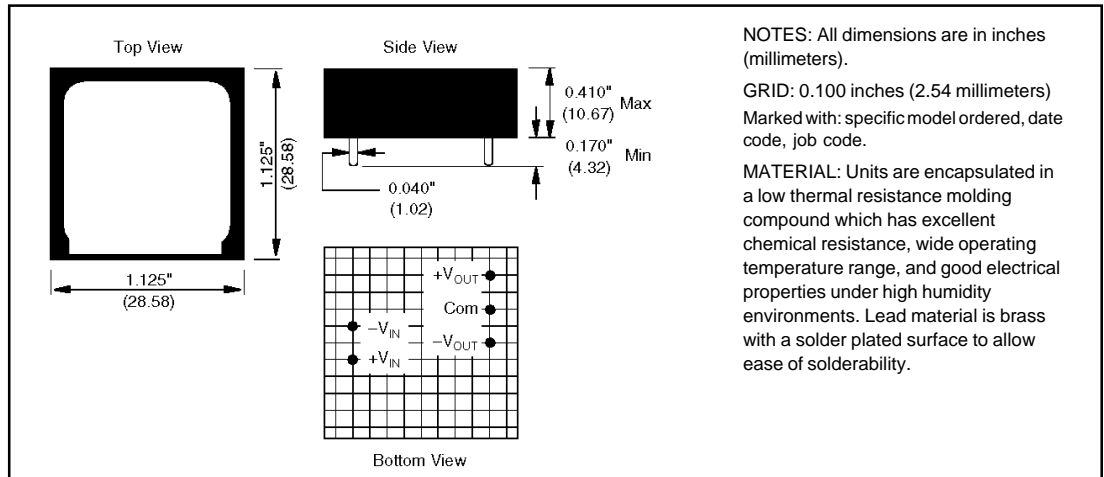
#### DESCRIPTION

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



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# 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
<b>INPUT</b>					
Rated Voltage			15		V <sub>DC</sub>
Voltage Range		5		22	V <sub>DC</sub>
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
<b>ISOLATION</b>					
Rated Voltage		1000			V <sub>DC</sub>
Test Voltage	60s, 60Hz	3000			V <sub>pk</sub>
Resistance			10		GΩ
Capacitance			10		pF
Leakage Current	$V_{ISO} = 240\text{VAC}, 60\text{Hz}$			3	μA
<b>OUTPUT</b>					
Rated Voltage			±15		V <sub>DC</sub>
Voltage Range	$I_{OUT} = \text{No Load}$	±15		±20	V <sub>DC</sub>
	$I_{OUT} = \text{Rated Load}$	±14.25		±15.75	V <sub>DC</sub>
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		mV <sub>pk</sub>
	$I_{LOAD} = \text{Rated Load}$			150	mV <sub>pk</sub>
<b>TEMPERATURE</b>					
Specification		-25		+85	°C
Operating		-40		+100	°C
Storage		-55		+125	°C

## ABSOLUTE MAXIMUM RATINGS

Input Voltage	22V <sub>DC</sub>
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**

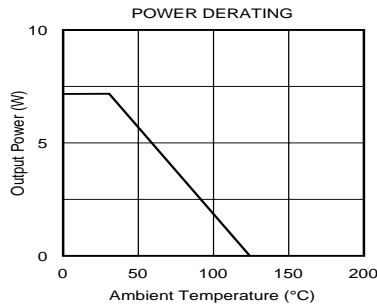
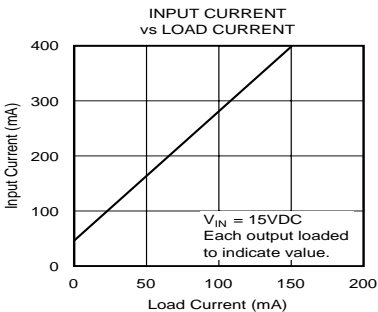
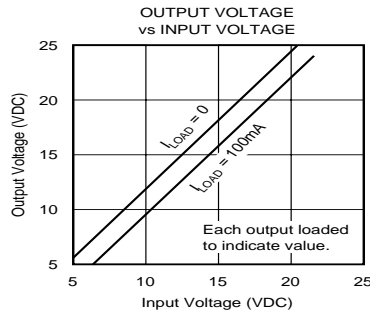
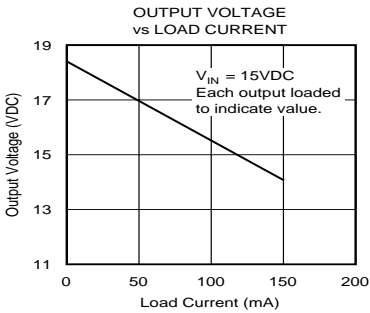
Device Family \_\_\_\_\_  
 PWR indicates DC/DC converter

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.



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