

T-57-11



## PWR4XX Series

### 3 Watts Rated Output Power UNREGULATED DC/DC CONVERTER SERIES

#### FEATURES

- Isolation Voltage Tested per UL544, VDE750, and CSAC22.2 Dielectric Withstand Requirement
- Barrier Leakage Current 100% Tested at 240VAC
- Single Channel
- Single or Dual Unregulated Outputs
- Wide Operating Temperature Range:  $-40^{\circ}\text{C}$  to  $+100^{\circ}\text{C}$
- Input and Output Filtering
- Six-Sided Shielding

diverse applications as process control, telecommunications, portable equipment, medical systems, airborne and shipboard electronic circuits, and automatic test equipment.

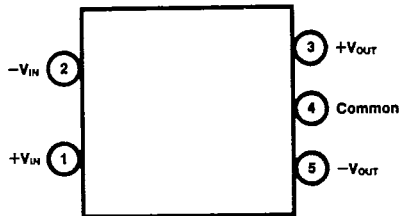
Thirty-six models allow the user to select input voltages ranging from +5VDC to +48VDC and output voltages of +5, +12, +15,  $\pm 5$ ,  $\pm 12$ , or  $\pm 15$ V.

Surface-mounted devices and manufacturing processes are used in the PWR4XX Series to give the user a device which is more environmentally rugged than most DC/DC converters. The use of surface-mount technologies also gives the PWR4XX Series superior isolation voltage. Each PWR4XX Series unit is tested in compliance with the dielectric withstand voltage requirements of UL544, VDC750, and CSAC22.2.

#### DESCRIPTION

The PWR4XX Series offers a large selection of unregulated 3W DC/DC converters for use in such

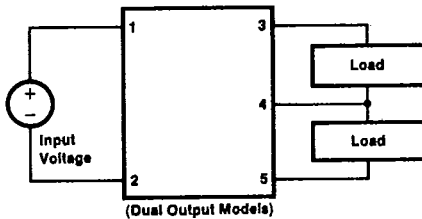
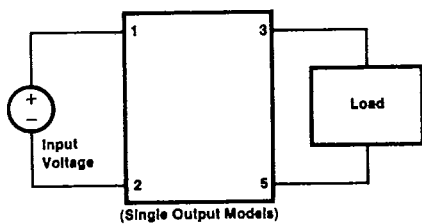
#### CONNECTION DIAGRAM



#### ORDERING INFORMATION

Device Family ————— PWR 4XX /G  
 PWR indicates DC/DC converter  
 Model Number —————  
 Selected from table of Electrical Characteristics  
 Reliability Screening —————  
 No designator indicates standard manufacturing processing  
 /G indicates Level I screening—burn-in only  
 /T indicates Level II screening—stabilization bake, temperature cycling, and burn-in

#### TYPICAL APPLICATIONS



International Airport Industrial Park - P.O. Box 11400 - Tucson, Arizona 85734 - Tel. (602) 746-1111 - Twx: 910-952-1111 - Cable: BBRCORP - Telex: 66-6491

PDS-567

T-57-11

BURR-BROWN CORP  
SPECIFICATIONS

ELECTRICAL CHARACTERISTICS<sup>(1)</sup>

Model	Nominal Input Voltage (VDC)	Rated Output Voltage (VDC)	Rated Output Current (mA)	Maximum Input Current (mA)
PWR400	5	5	600	1034
PWR401		12	250	1034
PWR402		15	200	1034
PWR403		±5	±300	1034
PWR404		±12	±125	1034
PWR405	±15	±100	1034	
PWR406	12	5	600	380
PWR407		12	250	380
PWR408		15	200	380
PWR409		±5	±300	380
PWR410		±12	±125	380
PWR411	±15	±100	380	
PWR412	15	5	600	286
PWR413		12	250	286
PWR414		15	200	286
PWR415		±5	±300	286
PWR416		±12	±125	286
PWR417	±15	±100	286	
PWR418	24	5	600	184
PWR419		12	250	184
PWR420		15	200	184
PWR421		±5	±300	184
PWR422		±12	±125	184
PWR423	±15	±100	184	
PWR424	28	5	600	162
PWR425		12	250	162
PWR426		15	200	162
PWR427		±5	±300	162
PWR428		±12	±125	162
PWR429	±15	±100	162	
PWR430	48	5	600	105
PWR431		12	250	105
PWR432		15	200	105
PWR433		±5	±300	105
PWR434		±12	±125	105
PWR435	±15	±100	105	

COMMON SPECIFICATIONS<sup>(1)</sup>

Parameter	Conditions	Min	Typ	Max	Units
<b>INPUT</b>					
Voltage Range		±20% of Rated Input			
Input Ripple Current	$I_{LOAD} = \text{Rated Load}$		70		mA, p-p
<b>ISOLATION</b>					
Rated Voltage		1000			VDC
Test Voltage	60Hz, 60 seconds	3000			$V_{PEAK}$
Resistance			10		GΩ
Capacitance			50		pF
Leakage Current	$V_{ISO} = 240VAC$			10	μA
<b>OUTPUT</b>					
Voltage Accuracy	$I_{LOAD} = \text{Rated Load}$			±5	%
Voltage (No Load)	$V_{OUT} = 5V$ Models			7	VDC
	$V_{OUT} = 12V$ Models			15	VDC
	$V_{OUT} = 15V$ Models			18	VDC
Ripple Voltage	$I_{LOAD} = \text{Rated Load}$		100		mV, p-p
Line Regulation			1		%/%
<b>TEMPERATURE</b>					
Specification		-25		+85	°C
Operation		-40		+100	°C
Storage		-55		+125	°C

NOTE: (1) Specifications typical at  $T_A = +25^\circ C$ , nominal input voltage, and rated output current unless otherwise noted.

ABSOLUTE MAXIMUM RATINGS

Input Voltage	120% × rated voltage
Output Short-Circuit Duration	Momentary
Internal Power Dissipation	2.5W
Junction Temperature	+125°C
Package Thermal Resistance	16°C/W
Lead Temperature (soldering, 10 seconds)	+300°C

MECHANICAL

**(Top View)**  
 Dimensions:  $1.125 \pm 0.015$  (28.58 ± 0.38) inches width,  $1.125 \pm 0.015$  (28.58 ± 0.38) inches height.  
 Marked with specific model number ordered.

**(Bottom View)**  
 Grid: 0.100 inches (2.54 millimeters).  
 Pin 4 is missing on single output models.

**(Side View)**  
 Dimensions: Max height 0.410 (10.41) inches, Min height 0.170 (4.32) inches.  
 Lead length:  $0.040 \pm 0.003$  (1.02 ± 0.08) inches.

**NOTES:**  
 All dimensions are in inches (millimeters)  
 GRID: 0.100 inches (2.54 millimeters)  
**MATERIAL:** 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 hot-solder-dipped surface to allow ease of solderability.