



## PWR2XX Series

### 1.5 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

#### DESCRIPTION

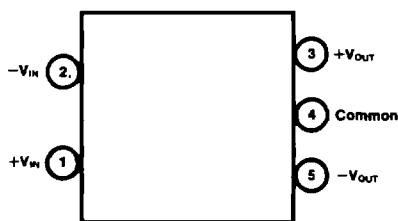
The PWR2XX Series offers a large selection of unregulated 1.5W DC/DC converters for use in such

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  $\pm 15$ VDC.

Surface-mounted devices and manufacturing processes are used in the PWR2XX 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 PWR2XX Series superior isolation voltage. Each PWR2XX Series unit is tested in compliance with the dielectric withstand voltage requirements of UL544, VDE750, and CSAC22.2.

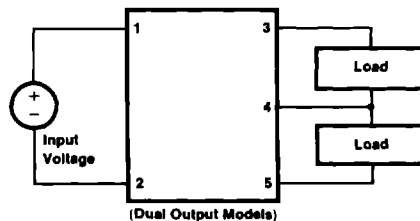
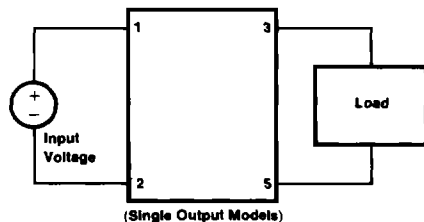
#### CONNECTION DIAGRAM



#### ORDERING INFORMATION

Device Family \_\_\_\_\_ PWR 2XX /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



# SPECIFICATIONS

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

Model	Nominal Input Voltage (VDC)	Rated Output Voltage (VDC)	Rated Output Current (mA)	Maximum Input Current (mA)
PWR200	5	5	300	545
PWR201		12	125	545
PWR202		15	100	545
PWR203		±5	±150	545
PWR204		±12	±83	545
PWR205	±15	±50	545	
PWR206	12	5	300	208
PWR207		12	125	208
PWR208		15	100	208
PWR209		±5	±150	208
PWR210		±12	±83	208
PWR211	±15	±50	208	
PWR212	15	5	300	167
PWR213		12	125	167
PWR214		15	100	167
PWR215		±5	±150	167
PWR216		±12	±83	167
PWR217	±15	±50	167	
PWR218	24	5	300	104
PWR219		12	125	104
PWR220		15	100	104
PWR221		±5	±150	104
PWR222		±12	±83	104
PWR223	±15	±50	104	
PWR224	28	5	300	92
PWR225		12	125	92
PWR226		15	100	92
PWR227		±5	±150	92
PWR228		±12	±83	92
PWR229	±15	±50	92	
PWR230	48	5	300	63
PWR231		12	125	63
PWR232		15	100	63
PWR233		±5	±150	63
PWR234		±12	±83	63
PWR235	±15	±50	63	

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

Parameter	Conditions	Min	Typ	Max	Units
<b>INPUT</b>					
Voltage Range		±20% of Rated Input			
Input Ripple Current	I <sub>LOAD</sub> = Rated Load		50		mA, p-p
<b>ISOLATION</b>					
Rated Voltage		1000			VDC
Test Voltage	60Hz, 60 seconds	3000			V <sub>PK</sub>
Resistance			10		GΩ
Capacitance			25		pF
Leakage Current	V <sub>ISO</sub> = 240VAC			5	μA
<b>OUTPUT</b>					
Voltage Accuracy	I <sub>LOAD</sub> = Rated Load			±5	%
Voltage (No Load)	V <sub>OUT</sub> = 5V Models			7	VDC
	V <sub>OUT</sub> = 12V Models			15	VDC
	V <sub>OUT</sub> = 15V Models			18	VDC
Ripple Voltage	I <sub>LOAD</sub> = Rated Load		75		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<sub>A</sub> = +25°C, nominal input voltage, and rated output current unless otherwise noted.

## ABSOLUTE MAXIMUM RATINGS

Input Voltage	120% X rated voltage
Output Short-Circuit Duration	Continuous to output common
Internal Power Dissipation	2W
Junction Temperature	+175°C
Package Thermal Resistance	60°C/W
Lead Temperature (soldering, 10 seconds)	+300°C

## MECHANICAL

(Top View)

(Bottom View)

(Side View)

Pin 4 is missing on single output models

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.