BURR-BROWN®

PWR8XX Series

5 Watts—Triple-Output 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°C to +100°C**
- **Input and Output Filtering**
- **Six-Sided Shielding**

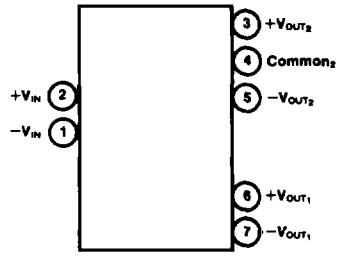
DESCRIPTION

The PWR8XX Series offers a large selection of unregulated 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.

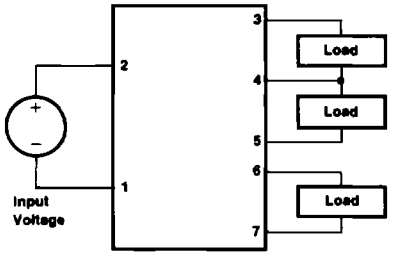
Twelve models allow the user to select input voltages ranging from +5VDC to +48VDC and output voltages of +5 and ±12VDC or ±15VDC.

Surface-mounted devices and manufacturing processes are used in the PWR8XX 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 PWR8XX Series superior isolation voltage. Each PWR8XX Series unit is tested in compliance with the dielectric withstand voltage requirements of UL544, VDC750, and CSAC22.2.

CONNECTION DIAGRAM



TYPICAL APPLICATION



ORDERING INFORMATION

PWR 8XX /G

Device Family
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

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PDS-590A

SPECIFICATIONS

ELECTRICAL CHARACTERISTICS[1]

Model	Nominal Input Voltage (VDC)	Channel 1 Rated Output		Channel 2 Rated Output		Maximum Input Current (mA)
		Voltage (VDC)	Current (mA)	Voltage (VDC)	Current (mA)	
PWR800	5	5	250	±12	±156	1665
PWR801		5	250	±15	±125	1665
PWR802	12	5	250	±12	±156	695
PWR803		5	250	±15	±125	695
PWR804	15	5	250	±12	±156	555
PWR805		5	250	±15	±125	555
PWR806	24	5	250	±12	±156	345
PWR807		5	250	±15	±125	345
PWR808	28	5	250	±12	±156	295
PWR809		5	250	±15	±125	295
PWR810	48	5	250	±12	±156	170
PWR811		5	250	±15	±125	170

COMMON SPECIFICATIONS[1]

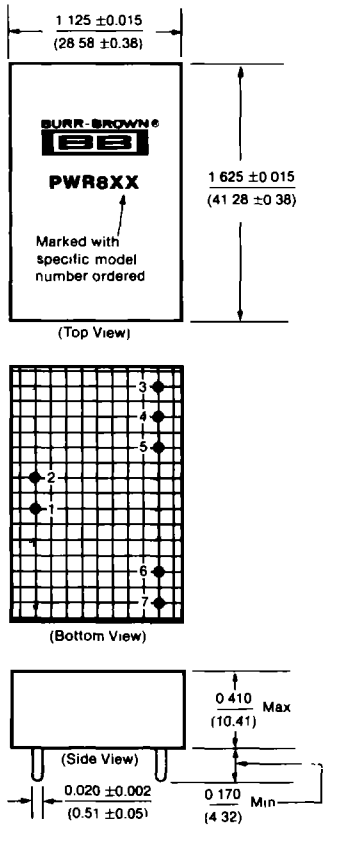
Parameter	Conditions	Min	Typ	Max	Units
INPUT					
Voltage Range			±20% of Rated Input		
Input Ripple Current	I_{LOAD} = Rated Load		50		mA, p-p
ISOLATION					
Rated Voltage		1000			VDC
Test Voltage	60Hz, 60 seconds	3000			V_{PEAK}
Resistance			10		GΩ
Capacitance			80		pF
Leakage Current	V_{ISO} = 240VAC			15	μA
OUTPUT					
Voltage Accuracy	I_{LOAD} = 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} = Rated Load		100		mV, p-p
Line Regulation			1		%/%
TEMPERATURE					
Specification		−25		+85	°C
Operation		−40		+100	°C
Storage		−55		+125	°C

NOTE: (1) Specifications typical at T_A = +25°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	4W
Junction Temperature	+175°C
Package Thermal Resistance	27°C/W
Lead Temperature (soldering, 10 seconds)	+300°C

MECHANICAL



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 assure ease of solderability.