BURR-BROWN®

PWR3XX Series

Dual-Channel, 2 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°C to +100°C**
- **Input and Output Filtering**
- **Six-Sided Shielding**

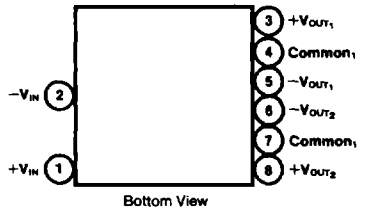
DESCRIPTION

The PWR3XX Series offers a large selection of unregulated 2W 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, ±5, ±12, or ±15VDC.

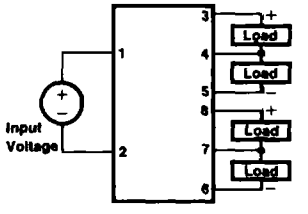
Surface-mounted devices and manufacturing processes are used in the PWR3XX Series to give the user a device which is more environmentally rugged than most DC/DC converters. The use of surface-mount technologies also gives the PWR3XX Series superior isolation voltage. Each PWR3XX Series unit is tested in compliance with the dielectric withstand voltage requirements of UL544, VDE750, and CSAC22.2.

CONNECTION DIAGRAM

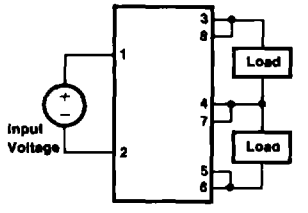


Bottom View

TYPICAL APPLICATIONS



(Dual-Channel, Dual Output)



(Single-Channel, High-Current Dual Output)

ORDERING INFORMATION

PWR 3XX /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-566A

SPECIFICATIONS

ELECTRICAL CHARACTERISTICS[1]

Model	Nominal Input Voltage (VDC)	Rated Output Voltage (VDC)	Rated Output Current (mA)	Maximum Input Current (mA)
PWR300	5	5	200	690
PWR301		12	84	690
PWR302		15	67	690
PWR303		±5	±100	690
PWR304		±12	±42	690
PWR305		±15	±34	690
PWR306	12	5	200	265
PWR307		12	84	265
PWR308		15	67	265
PWR309		±5	±100	265
PWR310		±12	±42	265
PWR311		±15	±34	265
PWR312	15	5	200	205
PWR313		12	84	205
PWR314		15	67	205
PWR315		±5	±100	205
PWR316		±12	±42	205
PWR317		±15	±34	205
PWR318	24	5	200	130
PWR319		12	84	130
PWR320		15	67	130
PWR321		±5	±100	130
PWR322		±12	±42	130
PWR323		±15	±34	130
PWR324	28	5	200	115
PWR325		12	84	115
PWR326		15	67	115
PWR327		±5	±100	115
PWR328		±12	±42	115
PWR329		±15	±34	115
PWR330	48	5	200	70
PWR331		12	84	70
PWR332		15	67	70
PWR333		±5	±100	70
PWR334		±12	±42	70
PWR335		±15	±34	70

COMMON SPECIFICATIONS[1]

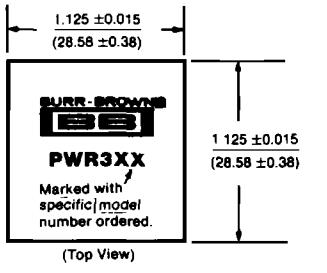
Parameter	Conditions	Min	Typ	Max	Units
INPUT					
Voltage Range			±20% of Rated Input		
Input Ripple Current	I_{LOAD} = Rated Load		30		mA, p-p
ISOLATION					
Rated Voltage		1000			VDC
Test Voltage	60Hz, 60 seconds	3000			V_{PEAK}
Resistance			10		GΩ
Capacitance			25		pF
Leakage Current	V_{ISO} = 240VAC			10	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		50		mV, p-p
Line Regulation			1		%/%
TEMPERATURE					
Specification		−25		+85	°C
Operation		−40		+100	°C
Storage		−55		+125	°C

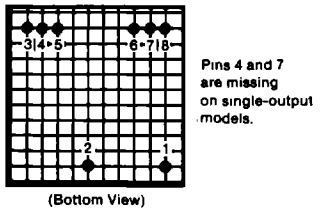
NOTE: (1) Specifications typical at T_A = +25°C, nominal input voltage, and rated output current unless otherwise noted

ABSOLUTE MAXIMUM RATINGS

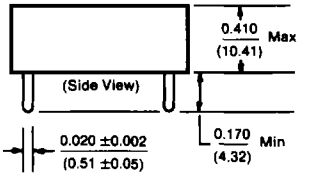
Input Voltage ..... 120% × rated voltage
Output Short-Circuit Duration ..... Continuous to Output Common
Internal Power Dissipation 2W
Junction Temperature ..... +175°C
Package Thermal Resistance ..... 90°C/W
Lead Temperature
(soldering, 10 seconds) ..... +300°C

MECHANICAL





Pins 4 and 7 are 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.