POWER CONVERTIBLES™

PWR5XX SERIES
4 WATTS
UNREGULATED

DC/DC CONVERTERS

QUAD CHANNEL

FEATURES

- QUAD CHANNEL
- BARRIER LEAKAGE CURRENT 100% TESTED AT 240VAC
- SINGLE OR DUAL UNREGULATED OUTPUTS
- WIDE OPERATING TEMPERATURE RANGE: -40° TO +100°C
- INPUT AND OUTPUT FILTERING
- SIX-SIDED SHIELDING

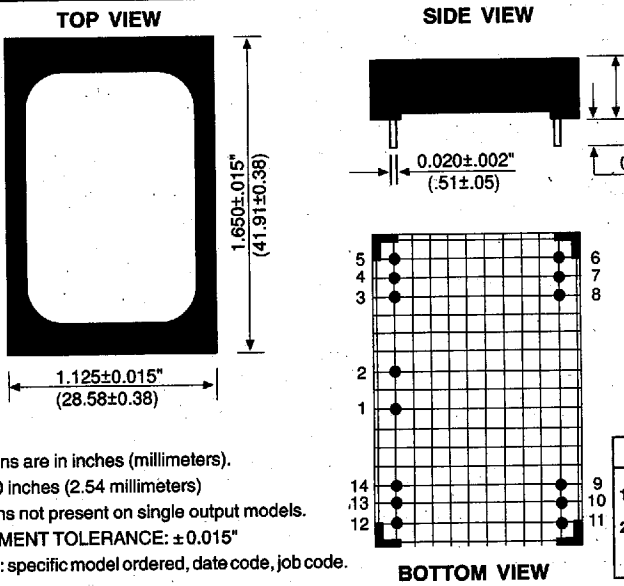
DESCRIPTION

The PWR5XX Series offers a large selection of unregulated 4W 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 of 5VDC to 48 VDC and output voltages of 5, 12, 15, ±5, ±12, or ±15V.

Surface-mounted devices and manufacturing processes used in the PWR5XX Series provides the user a device that is environmentally rugged. Surface-mount technologies also gives the PWR5XX Series superior isolation voltage.

MECHANICAL



MATERIAL: Units are encapsulated in Iso-ThermoFlex™, a low thermal resistance molding compound which has excellent chemical resistance, wide operating temperature range, and good electrical properties under high humidity environments. The encapsulant and outer shell of the unit have UL94V-0 ratings. Lead material is brass with a solder plated surface to allow ease of solderability.

Notes:
All dimensions are in inches (millimeters).
GRID: 0.100 inches (2.54 millimeters)
Common pins not present on single output models.
PIN PLACEMENT TOLERANCE: ±0.015"
Marked with: specific model ordered, date code, job code.

PIN CONNECTIONS				
1. +VIN	3. -VOUT1	6. -VOUT2	9. -VOUT3	12. -VOUT4
2. -VIN	4. COM1	7. COM2	10. COM 3	13. COM 4
	5. +VOUT1	8. +VOUT2	11. +VOUT3	14. +VOUT4

ELECTRICAL SPECIFICATIONS

Specifications typical at T_A = +25°C, nominal input voltage, rated output current unless otherwise noted.

MODEL	NOMINAL INPUT VOLTAGE (VDC)	RATED OUTPUT VOLTAGE (VDC)	RATED OUTPUT CURRENT (mA)	MAXIMUM INPUT CURRENT (mA)
PWR500	5	5	200	1300
PWR501	5	12	84	1290
PWR502	5	15	67	1230
PWR503	5	±5	±100	1300
PWR504	5	±12	±42	1290
PWR505	5	±15	±34	1230
PWR506	12	5	200	490
PWR507	12	12	84	444
PWR508	12	15	67	444
PWR509	12	±5	±100	490
PWR510	12	±12	±42	444
PWR511	12	±15	±34	444
PWR512	15	5	200	390
PWR513	15	12	84	355
PWR514	15	15	67	355
PWR515	15	±5	±100	390
PWR516	15	±12	±42	355
PWR517	15	±15	±34	355
PWR518	24	5	200	245
PWR519	24	12	84	222
PWR520	24	15	67	222
PWR521	24	±5	±100	245
PWR522	24	±12	±42	222
PWR523	24	±15	±34	222
PWR524	28	5	200	210
PWR525	28	12	84	190
PWR526	28	15	67	190
PWR527	28	±5	±100	222
PWR528	28	±12	±42	190
PWR529	28	±15	±34	190
PWR530	48	5	200	123
PWR531	48	12	84	111
PWR532	48	15	67	111
PWR533	48	±5	±100	123
PWR534	48	±12	±42	111
PWR535	48	±15	±34	111

NOTE: Other input to output voltages may be available. Please consult factory.

COMMON SPECIFICATIONS

Specifications typical at T_A = +25°C, nominal input voltage, rated output current unless otherwise noted.

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
INPUT					
Voltage Range				±20%	Nominal
Input Ripple Current	I_{LOAD} = Rated Load		70		mA, p-p
ISOLATION					
Rated Voltage		750			VDC
Test Voltage	60Hz, 60 Seconds	750			Vpk
Resistance			10		GΩ
Capacitance			55		pF
Leakage Current	V_{ISO}= 240VAC			15	µA
OUTPUT					
Voltage Setpoint Accuracy	Rated Load, Nominal V_{IN}			±5	%
Voltage	No Load, V_{OUT} = 5V Models			7	VDC
	No Load, V_{OUT} = 12V Models			15	VDC
	No Load, V_{OUT} = 15V Models			18	VDC
Ripple Voltage	No Load, I_{LOAD} = Rated Load		1		% of V_{OUT}, p-p
Line Regulation			1		%/%
GENERAL					
Switching Frequency			100		kHz
Package Weight			20		g
TEMPERATURE					
Specification		-25	+25	+85	°C
Operation		-40		+100	°C
Storage		-40		+110	°C

ABSOLUTE MAXIMUM RATINGS

Internal Power Dissipation.....2.5W
Short Circuit Protection.....<1 second
Lead Temperature (soldering, 10 seconds max).....+300°C