

9 WATTS REGULATED DC/DC CONVERTERS

PWR51XX



DESCRIPTION

The PWR5104 and PWR5105 offer respectively $\pm 12\text{VDC}$ and $\pm 15\text{VDC}$ outputs of regulated 9W power driven from your +5V system bus. These units are designed for use in such diverse applications as process control, telecommunications, portable equipment, medical systems, airborne and shipboard electronic circuits, and automatic test equipment.

The PWR5104 and PWR5105 offer a low-cost alternative to other models currently on the market. In addition, these models utilize high frequency switching in order to maintain a low EMI and RFI environment. Both models incorporate input and output filtering along with six-sided shielding to keep unwanted noise from your circuit.

Surface-mounted devices and manufacturing processes are used in the PWR5104 and PWR5105 to give you a device that is environmentally rugged. These manufacturing and design technologies also give superior isolation voltage.

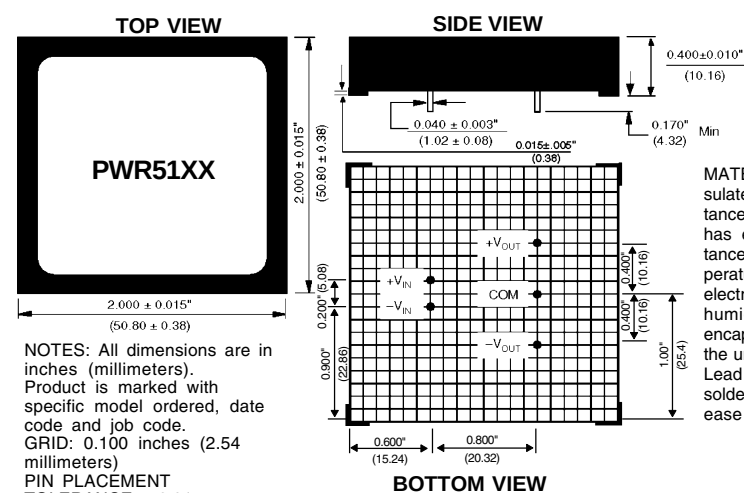
FEATURES

- **LOW COST**
- **LOW NOISE**
- **LINEAR OUTPUT REGULATION**
- **WIDE OPERATING TEMPERATURE RANGE: -40°C TO +100°C**
- **±12V_{DC} AND ±15V_{DC} OUTPUTS**
- **INPUT AND OUTPUT FILTERING**
- **SIX-SIDED SHIELDING**
- **BARRIER LEAKAGE CURRENT**
- **100% TESTED AT 240V_{AC}**

APPLICATIONS

- PROCESS CONTROL
- TELECOMMUNICATIONS
- PORTABLE EQUIPMENT
- MEDICAL SYSTEMS
- AIRBORNE AND SHIPBOARD ELECTRONIC CIRCUITS
- AUTOMATIC TEST EQUIPMENT

MECHANICAL



MATERIAL: Units are encapsulated in a low thermal resistance molding compound that 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.

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ELECTRICAL SPECIFICATIONS

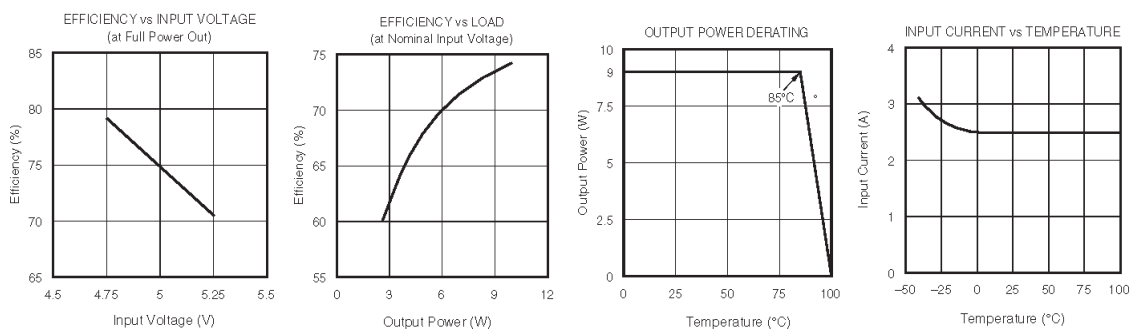
Specifications typical at $T_A = +25^\circ\text{C}$, nominal input voltage, rated output current unless otherwise noted.

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
INPUT					
Nominal Voltage			5		V _{DC}
Voltage Range		4.75		5.25	V _{DC}
Input Current	No Load		60		mA
	Rated Load		2400		mA
Ripple Current	Rated Load		5	2570	mAp-p
OUTPUT					
PWR5104 Rated Voltage			±12		V _{DC}
Rated Current				±375	mA
PWR5105 Rated Voltage			±15		V _{DC}
Rated Current				±300	mA
Setpoint Accuracy	Rated Load, Nominal V _{IN}		±0.5	±1.0%	%
Voltage Balance			±0.3		%
Temperature Coefficient	-25°C to +85°C		±0.01		%/°C
Ripple and Noise	BW = DC to 10MHz		6	35	mVp-p
Line Regulation			0.02		%
Load Regulation			0.04		%
Efficiency		70	75		%
ISOLATION					
Rated Voltage		750			V _{DC}
Test Voltage	60 Hz, 10 Seconds	750			mVp-p
Resistance			10		GΩ
Capacitance			50		pF
Leakage Current	240Vrms, 60Hz			15	μArms
GENERAL					
Switching Frequency			50		kHz
Package Weight			50		g
TEMPERATURE					
Specification		-25	+25	+85	°C
Operation		-40		+100	°C
Storage		-55		+125	°C

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

TYPICAL PERFORMANCE CURVES

Typical at $T_A = +25^\circ\text{C}$, nominal input voltage and rated output current unless otherwise noted.



ABSOLUTE MAXIMUM RATINGS

Input Voltage	5.5V _{DC}
Output Short Circuit Duration	15 seconds
Internal Power Dissipation	4W
Lead Temperature (soldering, 10 seconds max)	+300°C

ORDERING INFORMATION

Device Family	PWR	51XX	/H
PWR indicates DC/DC converter			
Model Number			
Selected From Table of Electrical Specifications			
Screening Option			

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