



PWR62XX SERIES

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**NEW**


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## -5.2VDC Output, ECL Power Supply 5.2W REGULATED DC/DC CONVERTER

### FEATURES

- -5.2 VDC OUTPUT
- LINEAR OUTPUT REGULATION
- WIDE OPERATING TEMPERATURE RANGE: -40°C to +100°C
- INPUT AND OUTPUT FILTERING
- SIX-SIDED SHIELDING
- 1000mA OUTPUT CURRENT
- 5, 12, 15, 24, 28 & 48VDC INPUT VOLTAGES
- ISOLATED

### APPLICATIONS

- ECL LOGIC SUPPLY
- HIGH-SPEED ADC
- COMPUTERS

### DESCRIPTION

The PWR62XX Series offers a selection of regulated 5.2W DC/DC converters for use in power ECL systems. The -5.2VDC output and various input voltages are fully isolated, allowing the designer flexibility in grounding and polarity configurations.

This series is the only one currently offered designed to give the -5.2VDC for ECL logic with no external trimming components. This reduces spare, labor, and costs in the end product. The PWR62XX Series has a low 15mVp-p typical output ripple and noise specification. No external parts are necessary to obtain this performance. Low noise insures system integrity and

solves problems before they occur. The absence of extra external filtering components further reduces total costs.

Surface-mounted devices and manufacturing processes are used in the PWR62XX to give the user a device more environmentally rugged than most converters. Void-free, hard-cast epoxy allows for excellent thermal dissipation and superior reliability. All models incorporate input and output filtering along with six-sided shielding to keep unwanted noise from your sensitive circuitry.

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PDS-891

# SPECIFICATIONS

## ELECTRICAL CHARACTERISTICS

Specifications at  $T_a = +25^\circ\text{C}$ , Rated Input Voltage, Rated Output Current unless otherwise specified.

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
<b>INPUT</b> Voltage	PWR6200	4.65	5.0	6.0	VDC
	PWR6201	11.0	12.0	15.0	VDC
	PWR6202	13.9	15.0	17.0	VDC
	PWR6203	21.0	24.0	27.0	VDC
	PWR6204	25.0	28.0	31.0	VDC
	PWR6205	44.5	48.0	53.0	VDC
Reflected Ripple Current			10		mAp-p
<b>ISOLATION</b> Rated Voltage Resistance Capacitance Leakage Current		500	10		VDC GΩ pF
			150		μAmps
	$V_{sc} = 240\text{VAC}, 60\text{Hz}$			25	
<b>OUTPUT</b> Rated Voltage Voltage Accuracy Temperature Coefficient Rated Current Rated Power Ripple and Noise			-5.2	±1	VDC % %/°C mA W mVp-p
			±0.01		
			1000		
			5.2		
			15		
	$BW = \text{DC to } 10\text{MHz}$				
<b>REGULATION</b> Line Load	High Line to Low Line		±0.04		%
	Full Load to No Load		0.06		%
<b>GENERAL</b> Efficiency Switching Frequency MTTF <sup>(1)</sup>			65		%
			60		kHz
			$1.0 \times 10^6$		hours

## MECHANICAL

(Top View)

2.000 ± 0.015 (50.80 ± 0.38)

2.000 ± 0.015 (50.80 ± 0.38)

(Bottom View)

(Side View)

0.410 Max (10.41)

0.170 Min (4.32)

0.040 ± 0.003 (1.02 ± 0.08)

NOTES: 1) All dimensions are in inches (millimeters).

GRID: 0.100 inches (2.54 millimeters)

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.

## ORDERING INFORMATION

PWR62XX X

Device Family \_\_\_\_\_

PWR indicates DC/DC converter

Model Number \_\_\_\_\_

Reliability Screening \_\_\_\_\_

No designator indicates standard manufacturing process.  
 /G indicates Level I screening—burn-in only.  
 /T indicates Level II screening—stabilization bake, temperature cycling, and burn-in.

## THERMAL CHARACTERISTICS

PARAMETER	MIN	TYP	MAX	UNITS
Specifications	-25		+85	°C
Operating	-40		+100	°C
Storage	-55		+125	°C
Package Thermal Resistance (Junction-to-Ambient)		15		°C/W

## ABSOLUTE MAXIMUM RATINGS

Input Voltage	6V
Output Short-Circuit Duration	15 min
Internal Power Dissipation	4.0W
Lead Temperature (Soldering, 10sec)	+300°C
Junction Temperature	+150°C