Murata Power Solutions

PWR70C Series

3 Watt, High Isolation, Unregulated DC/DC Converters

FEATURES

- Tested in compliance with UL544
- Output power to 3W
- High isolation voltage: 5000Vpk tested
- Six-sided shielding
- Input and output filtering
- Low profile package: 0.4" High

APPLICATIONS

- Power for data acquisition, op amps, etc.
- Process control
- Portable equipment
- Test equipment

PRODUCT OVERVIEW

The PWR70C is a dual-output DC/DC converter designed for general purpose power conversion applications where high efficiency is more important than load regulation.

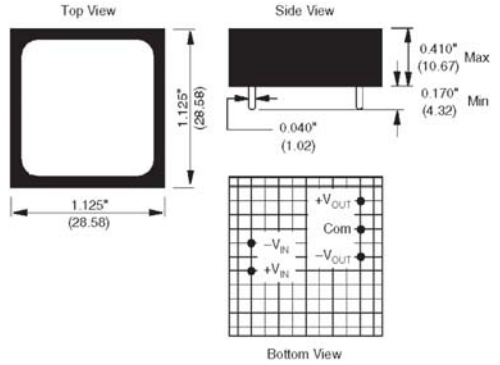
The PWR70C provides a bipolar output voltage approximately equal to the input voltage magnitude. It operates over an input voltage range of 10VDC to 18VDC. Isolation voltage is tested at 5000Vpk.

Six-sided shielding suppresses electromagnetic radiation which could disturb sensitive analog measurements or interfere with system timing signals. Input filtering minimizes reflected ripple current. Output ripple voltage and switching transients are reduced by filtering the PWR70C outputs.

The PWR70C is tested in compliance with UL544, VDE750, and CSA C22.2 dielectric withstand voltage requirements.

ABSOLUTE MAXIMUM RATINGS	
Input Voltage	18VDC
Output Current	±150mA
Output Short-Circuit Duration	Continuous

MECHANICAL DIMENSIONS



NOTES: All dimensions are in inches (millimeters).

GRID: 0.100 inches (2.54 millimeters)

WEIGHT: 15gm (0.53oz)

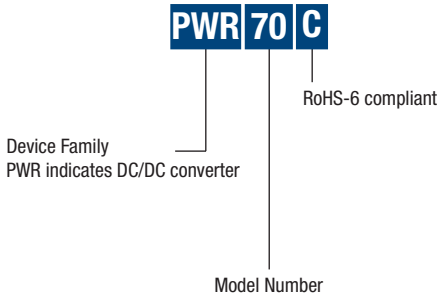
Marked with: specific model ordered, date code, job code.

MATERIAL: Units are encapsulated in a 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 matte tin finish of 100-300 micro-inches and a nickel barrier underplate of 5-40 micro-inches.

RoHS COMPLIANT

For full details go to
www.murata-ps.com/rohs

PART NUMBER STRUCTURE



ELECTRICAL SPECIFICATIONS

At Ta = +25°C, +Vin = 15VDC, and Iout = ±15mA unless otherwise noted.

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
INPUT					
Rated Voltage			15		VDC
Voltage Range		10		18	VDC
Input Current	I_{OUT} = ±3mA		25		mA
	I_{OUT} = ±33mA			150	mA
Ripple Current	I_{OUT} = ±33mA		10		mAp-p
ISOLATION					
Test Voltage	60s, 60Hz	5000			Vpk
Resistance			10		G Ω
Capacitance			12		pF
Leakage Current	V_{ISO} = 240VAC, 60Hz			2	µA
OUTPUT					
Rated Voltage			±15		VDC
Voltage Accuracy				±5	%
Rated Current			±15		mA
Current Range		0		±100	mA
Line Regulation	10VDC < Vin < 18VDC		1.08		V/V
Load Regulation	±3mA < Iout < ±33mA		35		mV/mA
Ripple Voltage	Iout = ±3mA		10		mVp-p
	Iout = ±33mA			80	mVp-p
TEMPERATURE					
Specification		–25		+85	°C
Operating		–55		+125	°C
Storage		–65		+150	°C

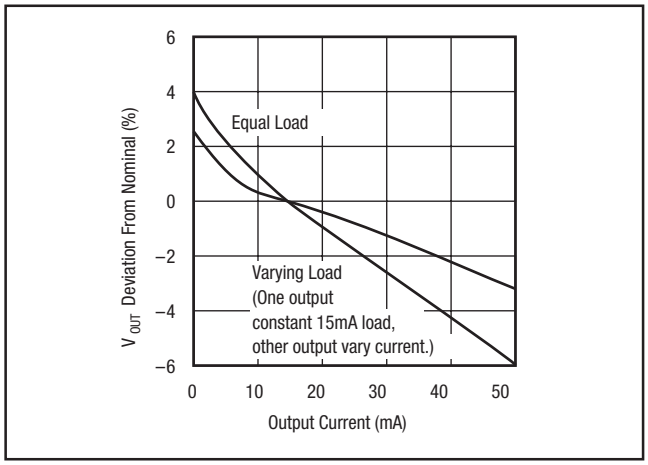


FIGURE 1. Load Regulation.

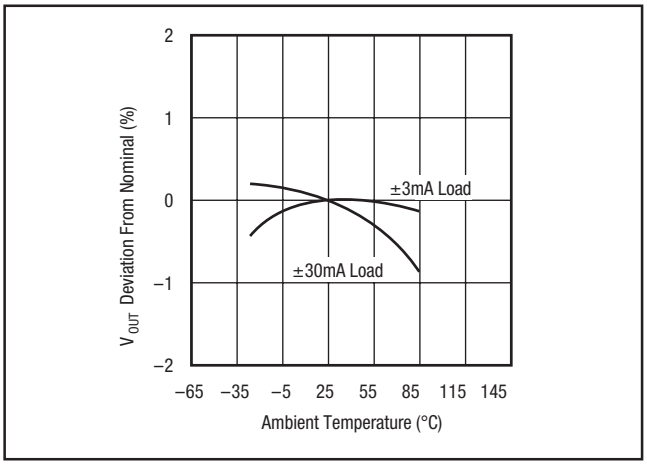


FIGURE 2. Temperature Drift.

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ISO 9001 and 14001 REGISTERED

This product is subject to the following operating requirements and the Life and Safety Critical Application Sales Policy:
Refer to: http://www.murata-ps.com/requirements/

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