

LDO06C Series

30 Watts

Total Power: 30 Watts
Input Voltage: 3-13.8 Vdc
No. of Outputs: Single

Special Features

- 6 A output current rating
- Input voltage range: 3-13.8 Vdc
- Adjustable out voltage: 0.59-5.1 V
- Optional factory setting with power good option
- Excellent transient response
- Power enable
- Minimum airflow
- Small package
- Termination voltage capability
- RoHS compliant

Safety

UL, cUL 60950-1
TÜV Product Service (EN60950)
Certificate No. TBD
CB Report and
Certificate to IEC60950

Electrical Specifications

Output

Output voltage	See Note 5	0.59-5.1 V
Output setpoint accuracy	0.1% trim resistors	±1.0%
Line regulation	Low line to high line	±0.2%
Load regulation	Full load to min. load	±0.5%
Min./max. load		0 A/6 A
Overshoot	At turn-on	0.5% max.
Undershoot	At turn-off	100 mV max.
Load transient response	2.5 A/μs	200 mV deviation 25 μs settling time
Ripple and noise 5 Hz to 20 MHz	See Note 1	20 mV Vin=5 V, Vout=2.5 V
Transient response	See Notes 1, 2	130 mV max. deviation 15 μs recovery to within regulation band

Input

Input voltage range		3-13.8 Vdc
Input current	Minimum load Remote OFF	50 mA 5 mA
Input current (max.)	See Note 3	6 A @ Io max.
Start-up time	Power up Remote ON/OFF	3 ms 2 ms

General

Efficiency (high input)	Vin=5 V, Vo=2.5 V, Io=6 A	92%
Switching frequency	Fixed	620 kHz
Material flammability		UL94V-0
Weight		1.899 g (0.067 oz.)
MTBF	12 V @ 40 °C, 100% load Bellcore 332	8,220,210 hours
Coplanarity	Surface mount models	150 μm

Rev. 09.03.08
LDO06C
1 of 4



Environmental Specifications

Thermal performance See Note 5	Operating ambient Non-operating ambient	-40 °C to +85 °C -40 °C to +125 °C
-----------------------------------	--	---------------------------------------

Protection

Short-circuit	Hiccup, non-latching
Overvoltage protection	Hiccup, non-latching

Recommended System Capacitance

Input	See Note 6	0 µF
Output	See Note 7	0 µF

Ordering Information

Output Power (Max.)	Input Voltage	Output Voltage	Output Current (Min.)	Output Current (Max.)	Efficiency (Typical)	Regulation Line	Load	Model Number ^(3,5)
30W	3-13.8 Vdc	0.59-5.1 V	0 A	6 A	92%	±0.2%	±0.5%	LDO06C-005W05-VJ
30W	3-13.8 Vdc	0.59-5.1 V	0 A	6 A	92%	±0.2%	±0.5%	LDO06C-005W05-HJ
30W	3-13.8 Vdc	0.59-5.1 V	0 A	6 A	92%	±0.2%	±0.5%	LDO06C-005W05-SJ

Part Number System with Options

Product Family	Rated Output Current	Performance	Input Voltage	Number of Pins Type of Output	Output Voltage	Mounting Option	Custom Option	RoHS Compliance
LDO	06	C	00	5W	05	V	X	J
Product Family LDO = LDO Series	Rated Output Current 06 = 6 Amp	Performance C = Cost Optimized	Input Voltage 00 = 3-13.8 V	Type of Output 5W = 5 Pins and Wide Output	Output Voltage 05 = 0.59-5.1 V	Mounting Option V = Vertical H = Horizontal S = Horizontal SMT VS = Vertical SMT	Custom Option	RoHS Compliance J = Pb free (RoHS 6/6 compliant)

Output Voltage Adjustment of the LDO06C Series

The ultra-wide output voltage trim range offers major advantages to users who select the LDO06C series. It is no longer necessary to purchase a variety of modules in order to cover different output voltages. The output voltage can be trimmed in a range of 0.59-5.1 Vdc. When the LDO06C converter leaves the factory, the output has been adjusted to the default voltage of 0.59 V.

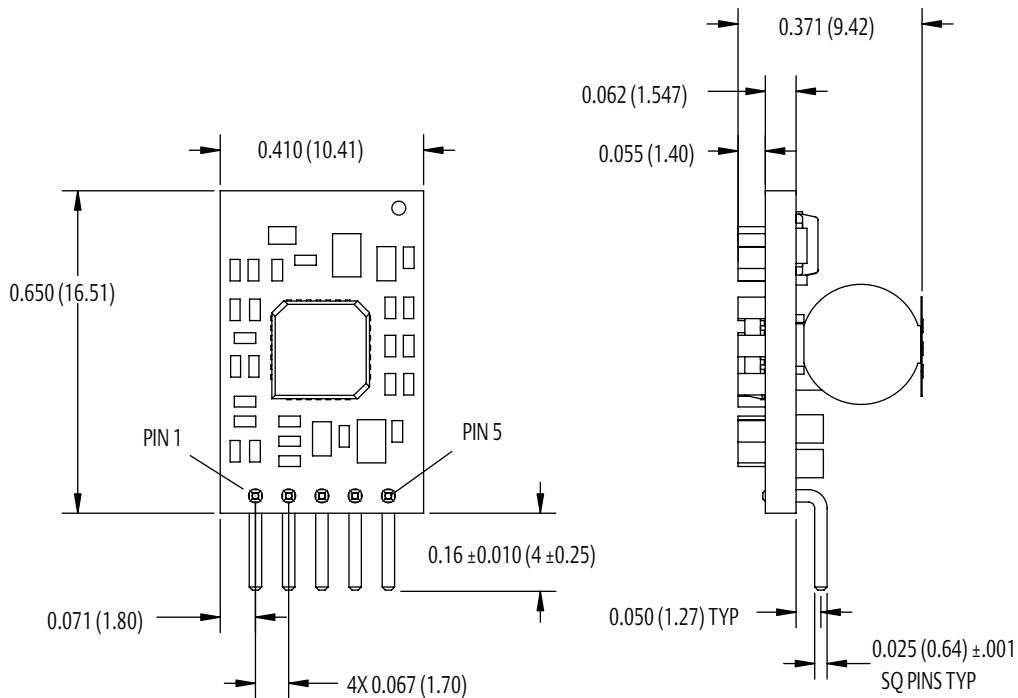
Notes:

1. Measured as per recommended system capacitance. See Technical Reference Note.
2. $di/dt = 10 \text{ A}/\mu\text{s}$, $V_{in} = \text{Nom}$, $T_c = 25^\circ\text{C}$, load change = 0.50 I_o to full I_o and full I_o to 0.50.
3. External input fusing is recommended.
4. Additional part numbers may be available with different output voltages.
5. Airflow dependent, 100 LFM minimum required.
6. No capacitors needed for ripple current stability.
7. No capacitors needed for stability.
8. TSE RoHS 5/6 (non Pb-free) compliant versions may be available on special request, please consult your local sales representative for details.
9. NOTICE: Some models do not support all options. Please contact your local Emerson Network Power representative or use the on-line model number search tool at <http://www.powerconversion.com/powergroup/products.htm> to find a suitable alternative.

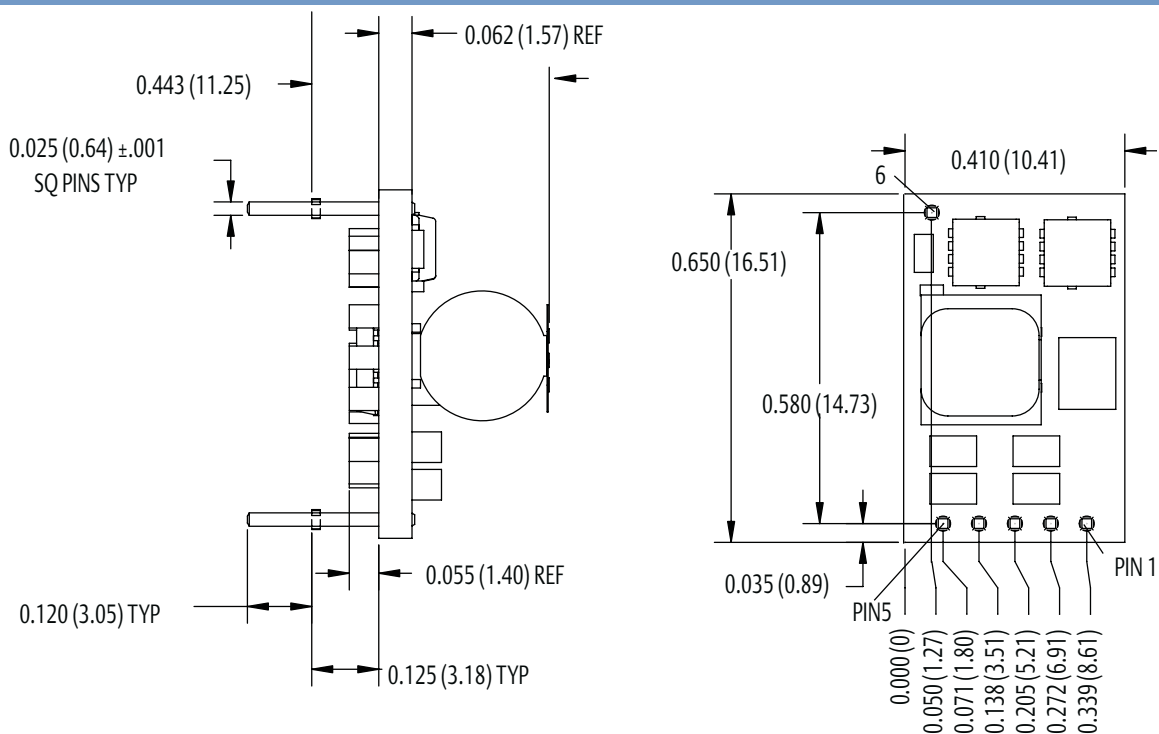
Mechanical Drawings

Vertical Mount

Dimensions in inches (mm). Tolerances es (unless otherwise specified) 2 Places ± 0.030 (± 0.76) 3 Places ± 0.010 (± 0.25)

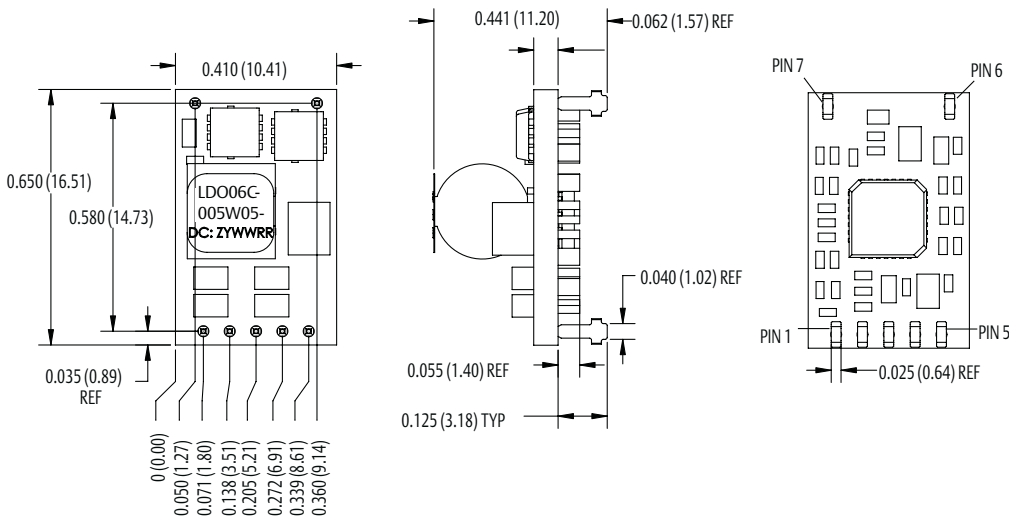


Horizontal Mount



Mechanical Drawings (Cont'd)

Surface Mount



Pin Assignments

Single Output

1. Enable
2. Vin
3. Common/RTN
4. Vout
5. PG/Trim
6. Mech Pin (Horz/SMT only)
7. Mech Pin (Horz/SMT only)

*This is a Preliminary Datasheet. Emerson Network Power reserves the right to make changes to the information contained herein without notice and assumes no liability as a result of its use or application.

Americas

5810 Van Allen Way
Carlsbad, CA 92008
USA
Telephone: +1 760 930 4600
Facsimile: +1 760 930 0698

Europe (UK)

Waterfront Business Park
Merry Hill, Dudley
West Midlands, DY5 1LX
United Kingdom
Telephone: +44 (0) 1384 842 211
Facsimile: +44 (0) 1384 843 355

Asia (HK)

16th - 17th Floors, Lu Plaza
2 Wing Yip Street, Kwun Tong
Kowloon, Hong Kong
Telephone: +852 2176 3333
Facsimile: +852 2176 3888

For global contact, visit:

www.powerconversion.com

For technical support, visit:

<http://www.powerconversion.com/support/product/technical-support.php>

While every precaution has been taken to ensure accuracy and completeness in this literature, Emerson Network Power assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions.

Printed in U.S.A.
Issue SF3

Emerson Network Power.

The global leader in enabling
business-critical continuity.

- AC Power
- Connectivity
- DC Power
- Embedded Power**
- Inbound Power
- Integrated Cabinet Solutions
- Outside Plant
- Precision Cooling
- Site Monitoring and Services

EmersonNetworkPower.com

Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co.
©2008 Emerson Electric Co.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.