

- +/-10% Input Range
- Low Ripple and Noise
- 1kV Isolation (3kV optional)
- 4 Pin SIL and 4 Pin DIL Package Styles
- Non Conductive Black Plastic Case
- EMI Complies With EN55022 Class B
- High Efficiency up to 78%
- -40 to +85 °C Operational Temperature Range



### Specification (typical values shown)

Input Ranges.....	5 Volts, 12 Volts, 24 Volts, 48 Volts (+/-10%)
Outputs.....	Single output (see table below)
Line Regulation.....	+/-1.2% per 1% Vin change
Load Regulation.....	+/-10% from 20-100% load (3.3V models are +/-20%)
Efficiency.....	See table for each model
Isolation Voltage.....	IP~OP: 1000 VDC (up to 3kV available, see notes)
Operating Temperature.....	-40 to +85 °C @ full load
Storage Temperature.....	-40 to +125 °C
Case/Base Material.....	Non-conductive black plastic (UL94V-0 rated)
Switching Frequency.....	80 kHz (variable)
Ripple & Noise.....	100 mV pk-pk (20 Mhz bandwidth)
Safety.....	IEC60950-1:2001
MTBF.....	>1.121 Mhrs (MIL-HDBK-217F) calculated

### Models and Ratings (Single in Line Versions)

Model (5V input)	Model (12V input)	Model (24V input)	Model (48V input)	Output (VDC)	Output Current	Efficiency
ECP0503S	ECP1203S	ECP2403S	ECP4803S	3.3 V	303 mA	72%
ECP0505S	ECP1205S	ECP2405S	ECP4805S	5.0 V	200 mA	75%
ECP0507S	ECP1207S	ECP2407S	ECP4807S	7.2 V	139 mA	76%
ECP0509S	ECP1209S	ECP2409S	ECP4809S	9.0 V	111 mA	77%
ECP0512S	ECP1212S	ECP2412S	ECP4812S	12.0 V	83 mA	78%
ECP0515S	ECP1215S	ECP2415S	ECP4815S	15.0 V	67 mA	78%
ECP0518S	ECP1218S	ECP2418S	ECP4818S	18.0 V	55 mA	78%
ECP0524S	ECP1224S	ECP2424S	ECP4824S	24.0 V	42 mA	78%

### Notes:

For 3kV isolation versions add suffix "H" to the part number e.g. ECP2405SH

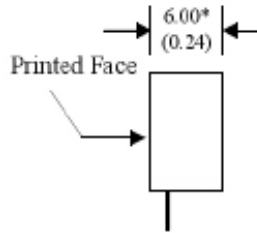
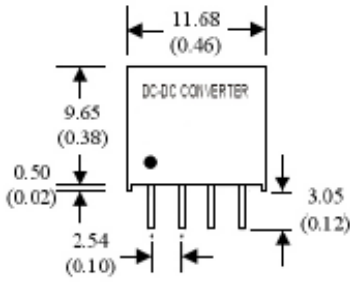
For DIL (dual in line) versions, change part from ECPxxxxS to ECPxxxxD

For mechanical data and pinout, see next page

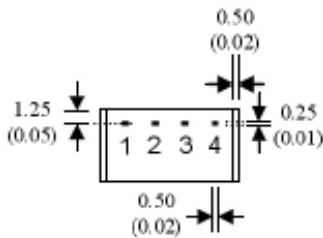
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## Mechanical Details and Pin-Out (SIL Versions)

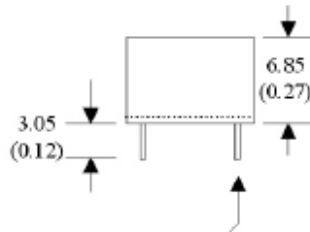
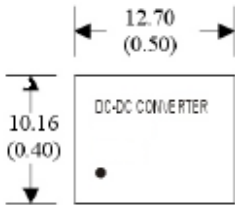


\* - The thickness of the 48V model is 7.5 mm (0.29")

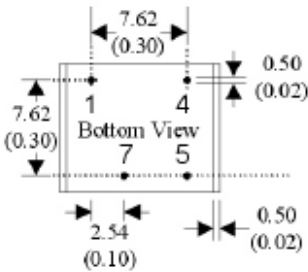


Pin Number	Function
1	-V In
2	+V In
3	-V Out
4	+V Out

## Mechanical Details and Pin-Out (DIL Versions)

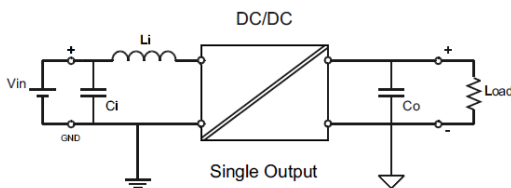


Pin size is 0.5mm (0.02") Dia.



Pin Number	Function
1	-V In
4	+V In
5	+V Out
7	-V Out

## Ripple and Noise filter circuit



To reduce ripple and noise, it is recommended to add a 4.7uF~100uF capacitor to the output. For EMI performance improvement, it is recommended to add a 12uH inductor and a 10uF~220uF capacitor to the input

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