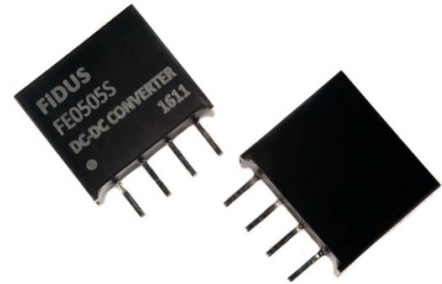


2 Watts

- Single output
- SIP package
- Industry standard pin out
- Up to 3KV Isolation
- -40 to +85°C Operation
- High stock on popular models
- 5 Year warranty



The FE series is a family of low cost single output DC/DC converters, available in a SIP 4 pin package. Inputs are available in 5, 12 & 24V versions and outputs from 3.3 to 24V. The units operate from -40 to +85°C. High volumes are held in stock for the popular models. All models have a FiDUS 5 year warranty.

Dimensions:

SIP: 0.46 x 0.29 x 0.40" (11.68 x 7.5 x 10.15mm)

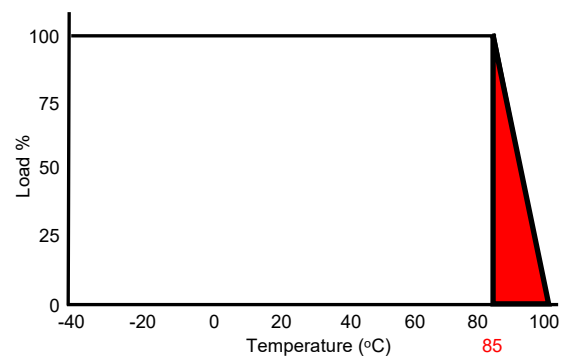
Models & Ratings

Model Number ⁽²⁾	Input ⁽³⁾	Output voltage	Output Current	Efficiency
FE0503S	5V	3.3V	400mA	78%
FE0505S ⁽¹⁾		5V	400mA	81%
FE0509S		9V	222mA	83%
FE0512S		12V	167mA	84%
FE0515S		15V	133mA	85%
FE0524S		24V	83mA	86%
FE1203S	12V	3.3V	400mA	72%
FE1205S		5V	400mA	81%
FE1209S		9V	222mA	81%
FE1212S ⁽¹⁾		12V	167mA	85%
FE1215S		15V	133mA	85%
FE1224S		24V	83mA	85%
FE2403S	24V	3.3V	400mA	81%
FE2405S ⁽¹⁾		5V	400mA	83%
FE2409S		9V	222mA	85%
FE2412S ⁽¹⁾		12V	167mA	86%
FE2415S		15V	133mA	86%
FE2424S		24V	83mA	88%

Notes

1. High stock items
2. Add 'H' to model number for 3000VDC isolation.
3. 15V input models available. Please contact sales.
4. Under no load conditions the unit may not meet all specifications
5. Do not operate continuously in the red area of derating curve

Derating curve



Input	
Parameter	Rating
Input voltage range	Nominal $\pm 10\%$
Input reflected ripple current	20mA pk-pk through 12uH inductor
Input current no load/ full load	5V Models 30/494mA. 12V Models 25/206mA. 24V Models 8/100mA.
Input surge (100mS max)	5V Models 7V DC Max. 12V Models 15VDC Max. 24V Models 28VDC Max. .
Input reverse voltage protection	None

Output

Parameter	Rating
Output voltage	See model ratings table
Line regulation	1.2%/1% change in Vin
Load regulation	±10% (20 - 100% load), 3.3V ±20%
Set point accuracy	±3%
Minimum load	None
Ripple & noise	150mV pk-pk. 20MHz bandwidth
Maximum capacitive load	

General

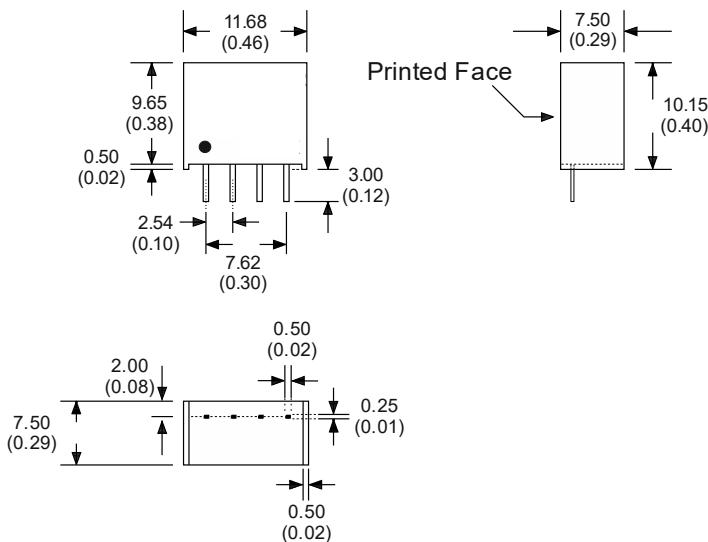
Parameter	Rating
Efficiency	See model ratings table
Isolation voltage	1000VDC. Optional to 3000VDC
Isolation resistance	1000M Ohm
Isolation capacitance	60pF typical
Switching frequency	Variable. 70KHz typical
MTBF	>1.21 Mhrs
Soldering temperature	260°C

Environmental

Parameter	Rating
Operating temperature	-40 - 85°C (See derating curve)
Storage temperature	-40 - 125°C
Case temperature	100°C
Cooling	Convection
Humidity	95% RH non-condensing

Physical

Parameter	Rating
Case material	Non-conductive black plastic (UL94V-0)
Pin material	0.5mm Alloy42 solder coated
Potting material	Epoxy (UL94V-0)
Weight	1.9g
Dimensions	0.46 x 0.29 x 0.40"



SIP Pin Connections	
Pin	Function
1	-Vin
2	+Vin
3	-Vout
4	+Vout

Dimension notes

- All dimensions shown in millimetres (inches)
- Pin diameter 0.5 ±0.05 (0.02 ±0.002)
- Case tolerance ±0.5 (±0.002)