

DC/DC Converter – VF-S1(H)

1.5 WATT
Single Output

FEATURES

- 1000 Vdc Isolation
- Up to 3000 Vdc Isolation
- 12 Pin SIL Package
- Regulated
- Continuous Short Circuit Protection
- Non-conductive Black Plastic Case
- MTBF > 1.5 MHours

Model Number	Input Vdc	Output Vdc	Output Current (mA)	Efficiency @FL (%)
VF-0505S1	5	5	300	66
VF-0509S1		9	167	66
VF-0512S1		12	125	70
VF-0515S1		15	100	70
VF-0524S1		24	63	68
VF-1205S1	12	5	300	66
VF-1209S1		9	167	66
VF-1212S1		12	125	70
VF-1215S1		15	100	70
VF-1224S1		24	63	68
VF-2405S1	24	5	300	63
VF-2409S1		9	167	63
VF-2412S1		12	125	68
VF-2415S1		15	100	68
VF-2424S1		24	63	68
VF-0505S1H	5	5	300	66
VF-0509S1H		9	167	66
VF-0512S1H		12	125	70
VF-0515S1H		15	100	70
VF-0524S1H		24	63	68
VF-1205S1H	12	5	300	66
VF-1209S1H		9	167	66
VF-1212S1H		12	125	70
VF-1215S1H		15	100	70
VF-1224S1H		24	63	68
VF-2405S1H	24	5	300	63
VF-2409S1H		9	167	63
VF-2412S1H		12	125	68
VF-2415S1H		15	100	68
VF-2424S1H		24	63	68

1. Suffix "H" means 3000 Vdc Isolation.

2. Input Voltage range is from 5 V to 48 V and Output Voltage is from 3.3 V to 24 V.

Input Specifications:

Voltage Range $\pm 10\%$
Filter π (Pi) Network

Isolation Specification:

Rated Voltage 1000 Vdc, Standard
3000 Vdc, Suffix "H"
Resistance 1000M Ω Min.
Capacitance 60 pF, Typ.

Output Specifications:

Voltage Accuracy: $\pm 2\%$, Max.
Ripple and Noise (at 20 MHz BW) 75mVp-p, Max
Short Circuit Protection Continuous
Short circuit Restart Automatic
Line Voltage Regulation $\pm 0.5\%$, Max.
Load Voltage Regulation $\pm 0.5\%$, Max.
Temperature Coefficient $\pm 0.02\% / ^\circ\text{C}$

General Specifications:

Efficiency 65% ~ 70%
Switching Frequency 40 KHz, Typ.

Environmental Specification:

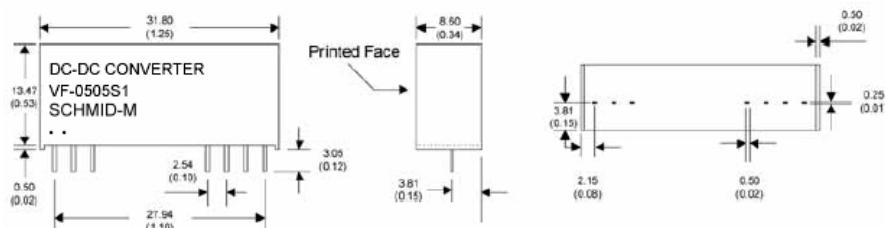
Operating Temperature (Ambient) $-40^\circ\text{C} \sim +85^\circ\text{C}$
Case Temperature 90°C Max.
Storage Temperature $-40^\circ\text{C} \sim +125^\circ\text{C}$
Derating None Required
Humidity Up to 90%, Non-condensing
Cooling Free-air Convection

Capacitive Load: Single Output 470 μF , Max.

Note: For Vin 48V series, pls. add a capacitor in the input point. Cx = 4.7 $\mu\text{F}/100\text{V} \sim 47\mu\text{F}/100\text{V}$.

MECHANICAL DIMENSIONS & PIN CONNECTIONS

12 Pin SIL Package



Pin #	STANDARD	3KVdc
1	Single	Single
1	+V Input	+V Input
2	N.C	-V Input
3	N.C	N.C
9	N.C	N.C
10	-V Output	-V Output
11	+V Output	+V Output
12	-V Input	N.C

Notes: 1. All dimensions are typical in millimeters (inches). Tolerance x.xx = ± 0.25 (± 0.01)