

DC/DC Converter – VA-S1/D1(H)

1 WATT

Single Output

FEATURES

- 1000 Vdc Isolation
- Up to 3000 Vdc Isolation
- 4 Pin SIL // 8 Pin DIL Package
- Low Ripple and Noise
- Unregulated
- Non-conductive Black Plastic Case
- MTBF > 2 MHours

Model Number	Input Vdc	Output Vdc	Output Current (mA)	Efficiency @FL (%)
VA-0505S1/D1	5	5	200	80
VA-0509S1/D1		9	111	78
VA-0512S1/D1		12	100	78
VA-0515S1/D1		15	67	80
VA-0524S1/D1		24	50	82
VA-1205S1/D1	12	5	200	78
VA-1209S1/D1		9	111	78
VA-1212S1/D1		12	100	80
VA-1215S1/D1		15	67	80
VA-1224S1/D1		24	50	80
VA-2405S1/D1	24	5	200	78
VA-2409S1/D1		9	111	78
VA-2412S1/D1		12	100	80
VA-2415S1/D1		15	67	82
VA-2424S1/D1		24	50	82
VA-0505S1/D1H	5	5	200	80
VA-0509S1/D1H		9	111	78
VA-0512S1/D1H		12	100	78
VA-0515S1/D1H		15	67	80
VA-0524S1/D1H		24	50	82
VA-1205S1/D1H	12	5	200	78
VA-1209S1/D1H		9	111	78
VA-1212S1/D1H		12	100	80
VA-1215S1/D1H		15	67	80
VA-1224S1/D1H		24	50	80
VA-2405S1/D1H	24	5	200	78
VA-2409S1/D1H		9	111	78
VA-2412S1/D1H		12	100	80
VA-2415S1/D1H		15	67	82
VA-2424S1/D1H		24	50	82

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 Capacitors

Isolation Specification:

Rated Voltage 1000 Vdc, Standard
Up to 3000 Vdc.
Resistance 1000M Ω Min.
Capacitance 60 pF, Typ.

Output Specifications:

Voltage Accuracy: $\pm 3\%$, Max.
Ripple and Noise (at 20 MHz BW) 100mVp-p, Max
Short Circuit Protection Momentary
Line Voltage Regulation $\pm 1.2\%$ / 1.0% of Vin
Load Voltage Regulation $\pm 8\%$, load=20~100%
Temperature Coefficient $\pm 0.02\%$ / $^{\circ}\text{C}$

General Specifications:

Efficiency 78% ~ 82%
Switching Frequency 80 KHz, Typ.

Environmental Specification:

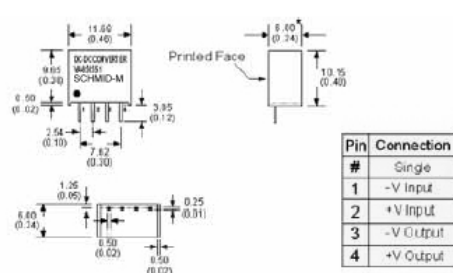
Operating Temperature (Ambient) -40°C ~ $+85^{\circ}\text{C}$
Case Temperature 90°C Max.
Storage Temperature -40°C ~ $+125^{\circ}\text{C}$
Derating None Required
Humidity Up to 90%, Non-condensing
Cooling Free-air Convection

Capacitive Load: Single Output 220 μF , Max.

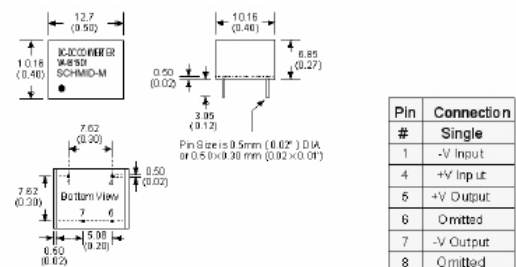
Note: For Vin 48V series, pls. add a capacitor in the input point. Cx = 4.7 $\mu\text{F}/100\text{V}$ ~ 47 $\mu\text{F}/100\text{V}$.

MECHANICAL DIMENSIONS & PIN CONNECTIONS

4 Pin SIL package



8 Pin DIL package



- Notes: 1. All dimensions are typical in millimeters (inches). Tolerance x.xx = ± 0.25 (± 0.01)
2. *7.50 (0.29) for SIP 48 Vdc variants.