

DC/DC Converter – V3-SS/DS , V3-S/D

2 WATT

Single / Dual Output

FEATURES

- 1000 Vdc Isolation (3000 Vdc and 6000 Vdc Isolation available)
- 7 Pin SIL // 14 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 (%)
V3-0505SS/DS	5	5	400	79
V3-0509SS/DS		9	222	84
V3-0512SS/DS		12	167	86
V3-0515SS/DS		15	133	84
V3-0524SS/DS		24	83	85
V3-0505S/D	5	±5	±200	73
V3-0509S/D		±9	±111	78
V3-0512S/D		±12	±84	80
V3-0515S/D		±15	±67	82
V3-0524S/D		±24	±42	81
V3-1205SS/DS	12	5	400	79
V3-1209SS/DS		9	222	84
V3-1212SS/DS		12	167	86
V3-1215SS/DS		15	133	85
V3-1224SS/DS		24	83	84
V3-1205S/D	12	±5	±200	75
V3-1209S/D		±9	±111	81
V3-1212S/D		±12	±84	83
V3-1215S/D		±15	±67	85
V3-1224S/D		±24	±42	86
V3-2405SS/DS	24	5	400	82
V3-2409SS/DS		9	222	84
V3-2412SS/DS		12	167	88
V3-2415SS/DS		15	133	85
V3-2424SS/DS		24	83	86
V3-2405S/D	24	±5	±200	77
V3-2409S/D		±9	±111	83
V3-2412S/D		±12	±84	84
V3-2415S/D		±15	±67	85
V3-2424S/D		±24	±42	88

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

Input Specifications:

Voltage Range 10%
Filter Capacitors

Isolation Specification:

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

Output Specifications:

Voltage Accuracy: ±3%, Max.
Voltage Balance (Dual Outputs) ±1%
Ripple and Noise (at 20 MHz BW) (±) 75mVp-p, Max
Short Circuit Protection Momentary
Line Voltage Regulation ±1.2% / 1.0% of Vin
Load Voltage Regulation ±8%, Load=20~100%
Temperature Coefficient ±0.02% / °C

General Specifications:

Efficiency 73% ~ 86%
Switching Frequency 125 KHz, Typ.

Environmental Specification:

Operating Temperature (Ambient) -40°C ~ +85°C
Case Temperature 100°C Max.
Storage Temperature -40°C ~ +125°C
Derating None Required
Humidity Up to 90%, Non-condensing
Cooling Free-air Convection

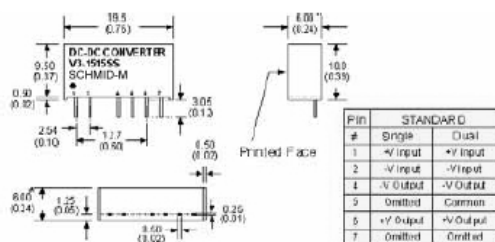
Capacitive Load:

Single Output 470uF, Max.
Dual Output ± 390uF, Max.

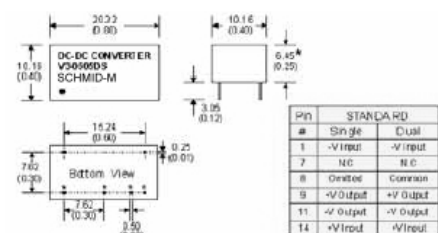
Note: For Vin 48V series, pls. add a capacitor in the input point. Cx = 4.7μF/100V ~ 47μF/100V.

MECHANICAL DIMENSIONS & PIN CONNECTIONS

7 Pin SIL package



14 Pin DIL package



- Notes: 1. All dimensions are typical in millimeters (inches). Tolerance x.xx = ± 0.25 (± 0.01)
2. "*" SIL Package: 7.20 (0.28) for 48 Vdc variants; DIL Package: 6.88 (0.27) for 48 Vdc variants.

DC/DC Converter – V3-S/D01, V3-S/D02

2 WATT

Separate Dual Output

FEATURES

- 1000 Vdc Isolation
- 7 Pin SIL // 14 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 (%)
V3-0503R3S/D01	5	5,3,3	200,200	77
V3-057R2SS/D01		5,7,2	200,139	77
V3-0509S/D01		5,9	200,111	77
V3-0512S/D01		5,12	200,84	80
V3-0512S/D01		5,15	200,67	80
V3-123R3S/D01	12	5,3,3	200,200	77
V3-127R2S/D01		5,7,2	200,139	77
V3-1209S/D01		5,9	200,111	77
V3-1212S/D01		5,12	200,84	80
V3-1215S/D01		5,15	200,67	80
V3-243R3S/D01	24	5,3,3	200,200	77
V3-247R2S/D01		5,7,2	200,139	77
V3-2409S/D01		5,9	200,111	77
V3-2412S/D01		5,12	200,84	80
V3-2415S/D01		5,15	200,67	80
V3-0505S/D02	5	5,5	200,200	78
V3-0509S/D02		9,9	111,111	78
V3-0512S/D02		12,12	84,84	82
V3-0515S/D02		15,15	67,67	82
V3-1205S/D02		12	5,5	200,200
V3-1209S/D02	9,9		111,111	78
V3-1212S/D02	12,12		84,84	82
V3-1215S/D02	15,15		67,67	82
V3-2405S/D02	24		5,5	200,200
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1. Input Voltage 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
Resistance 1000M Ω Min.
Capacitance 60 pF, Typ.

Output Specifications:

Voltage Accuracy: $\pm 3\%$, Max.
Ripple and Noise (at 20 MHz BW) $(\pm)75mVp-p$, 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 $\pm 0.02\% / ^\circ C$

General Specifications:

Efficiency 77% ~ 82%
Switching Frequency 125 KHz, Typ.

Environmental Specification:

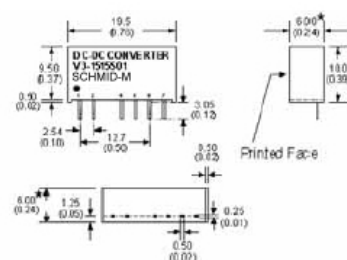
Operating Temperature (Ambient) $-40^\circ C \sim +85^\circ C$
Case Temperature $100^\circ C$ Max.
Storage Temperature $-40^\circ C \sim +125^\circ C$
Derating None Required
Humidity Up to 90%, Non-condensing
Cooling Free-air Convection

Capacitive Load: 390 μF , 390 μF , Max.

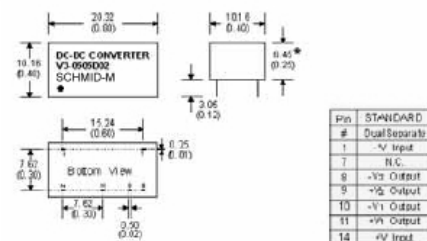
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