

DC/DC Converter – V5-S/D1

1.5 WATT
Single / Dual Output

FEATURES

- 1000 Vdc Isolation (3000 Vdc Isolation available)
- 24 Pin DIL Package
- Regulated
- Continuous Short Circuit Protection
- Non-conductive Black Plastic case
- MTBF > 1.3 MHours

Model Number	Input Vdc	Output Vdc	Output Current (mA)	Efficiency @FL (%)
V5-0505S1	5	5	300	66
V5-0509S1		9	167	66
V5-0512S1		12	125	66
V5-0515S1		15	100	70
V5-0524S1		24	63	68
V5-0505D1	5	±5	±150	55
V5-057R2D1		±7.2	±104	55
V5-0509D1		±9	±84	57
V5-0512D1		±12	±63	60
V5-0515D1		±15	±50	57
V5-1205S1	12	5	300	67
V5-1209S1		9	167	67
V5-1212S1		12	125	70
V5-1215S1		15	100	70
V5-1224S1		24	63	68
V5-1205D1	12	±5	±150	56
V5-127R2D1		±7.2	±104	56
V5-1209D1		±9	±84	58
V5-1212D1		±12	±63	62
V5-1215D1		±15	±50	60
V5-2405S1	24	5	300	63
V5-2409S1		9	167	63
V5-2412S1		12	125	65
V5-2415S1		15	100	67
V5-2424S1		24	63	64
V5-2405D1	24	±5	±150	55
V5-247R2D1		±7.2	±104	55
V5-2409D1		±9	±84	55
V5-2412D1		±12	±63	58
V5-2415D1		±15	±50	58

1. Suffix "M" Metal Instead of Plastic case Package.
2. 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	π (Pi) Network

Isolation Specification:

Rated Voltage	1000 Vdc, Min.
Resistance	1000M Ω Min.
Capacitance	390 pF, Typ.

Output Specifications:

Voltage Accuracy:	±2%, Max.
Voltage Balance (Dual Outputs)	±1%
Ripple and Noise (at 20 MHz BW)	75mVp-p, Max
Short Circuit Protection	Continuous
Short Circuit Restart	Automatic
Line Voltage Regulation	±0.5%, Max.
Load Voltage Regulation	±0.5%, Max.
Temperature Coefficient	±0.02% / °C

General Specifications:

Efficiency	55% ~ 70%
Switching Frequency	40 KHz, Typ.

Environmental Specification:

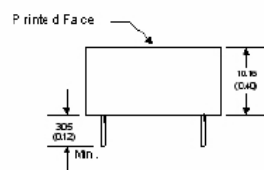
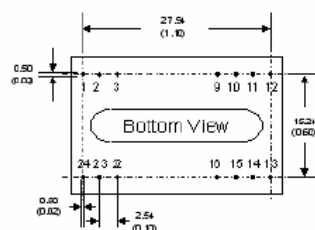
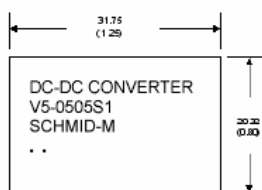
Operating Temperature (Ambient)	-40°C ~ +85°C
Case Temperature	95°C Max.
Storage Temperature	-40°C ~ +125°C
Humidity	Up to 90%, Non-condensing
Cooling	Free-air Convection

Capacitive Load:

Single Output	470µF, Max.
Dual Output	±220µF, Max.

MECHANICAL DIMENSIONS & PIN CONNECTIONS

24 DIL Package



Pin #	STANDARD	
	Single	Dual
1	+V Input	+V Input
2	N.C	-V Output
3	N.C	Common
10	-V Output	Common
11	+V Output	+V Output
12	-V Input	-V Input
13	-V Input	-V Input
14	+V Output	+V Output
15	-V Output	Common
22	N.C	Common
23	N.C	-V Output
24	+V Input	+V Input

- Notes: 1. All dimensions are typical in millimeters (inches). Tolerance x.xx = ± 0.25 (± 0.01)
2. Metal case dimensions are 31.75 * 20.32 * 10.16 mm.

DC/DC Converter – V5-S/D3

3 WATT

Single / Dual Output

FEATURES

- 1000 Vdc Isolation (3000 Vdc Isolation available)
- 24 Pin DIL Package
- Regulated
- Continuous Short Circuit Protection
- Non-conductive Black Plastic case
- MTBF > 1.3 MHours

Model Number	Input Vdc	Output Vdc	Output Current (mA)	Efficiency @FL (%)
V5-0505S3	5	5	600	65
V5-0509S3		9	333	70
V5-0512S3		12	250	70
V5-0515S3		15	200	70
V5-0524S3		24	125	67
V5-0505D3	5	±5	±300	52
V5-057R2D3		±7.2	±208	52
V5-0509D3		±9	±167	55
V5-0512D3		±12	±125	60
V5-0515D3		±15	±100	64
V5-1205S3	12	5	600	66
V5-1209S3		9	333	68
V5-1212S3		12	250	74
V5-1215S3		15	300	72
V5-1224S3		24	125	70
V5-1205D3	12	±5	±300	57
V5-127R2D3		±7.2	±208	57
V5-1209D3		±9	±167	60
V5-1212D3		±12	±125	62
V5-1215D3		±15	±100	64
V5-2405S3	24	5	600	66
V5-2409S3		9	333	68
V5-2412S3		12	250	70
V5-2415S3		15	200	70
V5-2424S3		24	125	74
V5-2405D3	24	±5	±300	52
V5-247R2D3		±7.2	±208	54
V5-2409D3		±9	±167	57
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Filter π (Pi) Network

Isolation Specification:

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Resistance 1000M Ω Min.
Capacitance 390 pF, Typ.

Output Specifications:

Voltage Accuracy: ±2%, Max.
Voltage Balance (Dual Outputs) ±1%
Ripple and Noise (at 20 MHz BW) 75mVp-p, Max
Short Circuit Protection Continuous
Short Circuit Restart Automatic
Line Voltage Regulation ±0.5%, Max.
Load Voltage Regulation ±0.5%, Max.
Temperature Coefficient ±0.02% / °C

General Specifications:

Efficiency 55% ~ 72%
Switching Frequency 40 KHz, Typ.

Environmental Specification:

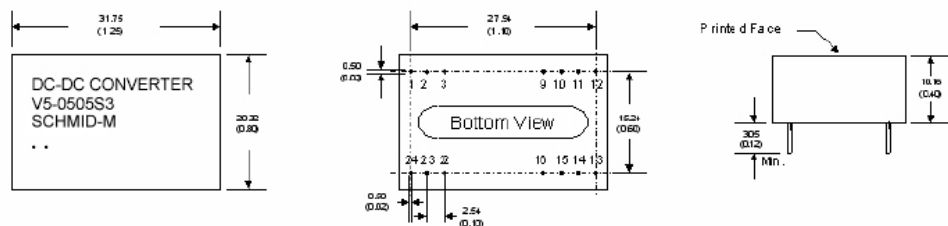
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Case Temperature 95°C Max.
Storage Temperature -40°C ~ +125°C
Humidity Up to 90%, Non-condensing
Cooling Free-air Convection

Capacitive Load:

Single Output 470 μ F, Max.
Dual Output ±220 μ F, Max.

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23	N.C	-V Output
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