

DC/DC Converter – RD-S/D1

1.5 WATT
Single / Dual Output

FEATURES

- 1500 Vdc Isolation (3500 Vdc Isolation available)
- Wide 2:1 Input Range
- 24 Pin DIL Package
- Regulated
- Continuous Short Circuit Protection
- Non-Conductive Plastic Case

Model Number	Input Vdc	Output Vdc	Output Current (mA)	Efficiency @FL (%)
RD-1205S1	9-18	5	300	74
RD-1209S1		9	167	77
RD-1212S1		12	125	76
RD-1215S1		15	100	78
RD-1224S1		24	63	78
RD-1205D1	9-18	±5	±150	74
RD-1209D1		±9	±84	76
RD-1212D1		±12	±63	75
RD-1215D1		±15	±50	78
RD-1224D1		±24	±32	78
RD-2405S1	18-36	5	300	74
RD-2409S1		9	167	74
RD-2412S1		12	125	76
RD-2415S1		15	100	76
RD-2424S1		24	63	77
RD-2405D1	18-36	±5	±150	75
RD-2409D1		±9	±84	76
RD-2412D1		±12	±63	77
RD-2415D1		±15	±50	78
RD-2424D1		±24	±32	78
RD-4805S1	36-72	5	300	73
RD-4809S1		9	167	75
RD-4812S1		12	125	77
RD-4815S1		15	100	77
RD-4824S1		24	63	78
RD-4805D1	36-72	±5	±150	74
RD-4809D1		±9	±84	75
RD-4812D1		±12	±63	77
RD-4815D1		±15	±50	78
RD-4824D1		±24	±32	78

1. Suffix " M " Metal Instead of Plastic case Package.
2. Input Voltage range is from 4.5 V to 72 V and Output Voltage is from 3.3 V to 24 V.

Input Specifications:

Voltage Range 5Vdc, 4.5-9 Vdc, 12Vdc, 9 -18 Vdc.,
24Vdc, 18-36 Vdc, 48Vdc, 36-72 Vdc
Filter π (Pi) Network

Isolation Specification:

Rated Voltage 1500 Vdc, Standard
Resistance 1000M Ω Min.
Capacitance 390 pF, Typ.

Output Specifications:

Voltage Accuracy: $\pm 1\%$, Max.
Voltage Balance (Dual Outputs) $\pm 1\%$
Ripple and Noise (at 20 MHz BW) (\pm) 60mVp-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:

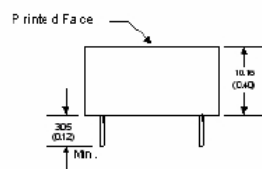
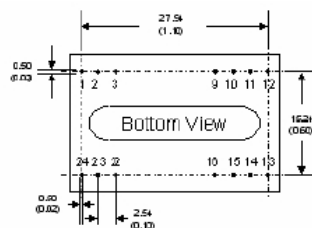
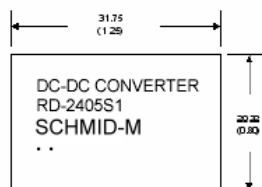
Efficiency 73% ~ 78%
Switching Frequency 100K ~ 400 KHz, Typ.

Environmental Specification:

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

MECHANICAL DIMENSIONS & PIN CONNECTIONS

24 Pin DIL package



Pin #	STANDARD	
	Single	Dual
2	-V Input	-V Input
3	-V Input	-V Input
9	Omitted	Common
11	N.C	-V Output
14	+V Output	+V Output
16	-V Output	Common
22	+V Input	+V Input
23	+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 – RD-S/D3

3 WATT

Single / Dual Output

FEATURES

- 1500 Vdc Isolation (3500 Vdc Isolation available)
- Wide 2:1 Input Range
- 24 Pin DIL Package
- Regulated
- Continuous Short Circuit Protection
- Non-Conductive Plastic Case

Model Number	Input Vdc	Output Vdc	Output Current (mA)	Efficiency @FL (%)
RD-1205S3	9-18	5	600	76
RD-1209S3		9	334	77
RD-1212S3		12	250	79
RD-1215S3		15	200	79
RD-1224S3		24	125	79
RD-1205D3	9-18	±5	±300	77
RD-1209D3		±9	±167	78
RD-1212D3		±12	±125	78
RD-1215D3		±15	±100	78
RD-1224D3		±24	±63	78
RD-2405S3	18-36	5	600	80
RD-2409S3		9	334	80
RD-2412S3		12	250	82
RD-2415S3		15	200	82
RD-2424S3		24	125	80
RD-2405D3	18-36	±5	±300	78
RD-2409D3		±9	±167	79
RD-2412D3		±12	±125	80
RD-2415D3		±15	±100	80
RD-2424D3		±24	±63	80
RD-4805S3	36-72	5	600	77
RD-4809S3		9	334	78
RD-4812S3		12	250	80
RD-4815S3		15	200	80
RD-4824S3		24	125	80
RD-4805D3	36-72	±5	±300	78
RD-4809D3		±9	±167	79
RD-4812D3		±12	±125	80
RD-4815D3		±15	±100	80
RD-4824D3		±24	±63	80

1. Suffix " M " Metal Instead of Plastic case Package.
2. Input Voltage range is from 4.5 V to 72 V and Output Voltage is from 3.3 V to 24 V.

Input Specifications:

Voltage Range 5Vdc, 4.5-9 Vdc, 12Vdc, 9 -18 Vdc., 24Vdc, 18-36 Vdc, 48Vdc, 36-72 Vdc
Filter π (Pi) Network

Isolation Specification:

Rated Voltage 1500 Vdc, Standard
Resistance 1000M Ω Min.
Capacitance 390 pF, Typ.

Output Specifications:

Voltage Accuracy: $\pm 1\%$, Max.
Voltage Balance (Dual Outputs) $\pm 1\%$
Ripple and Noise (at 20 MHz BW) (\pm) 60mVp-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:

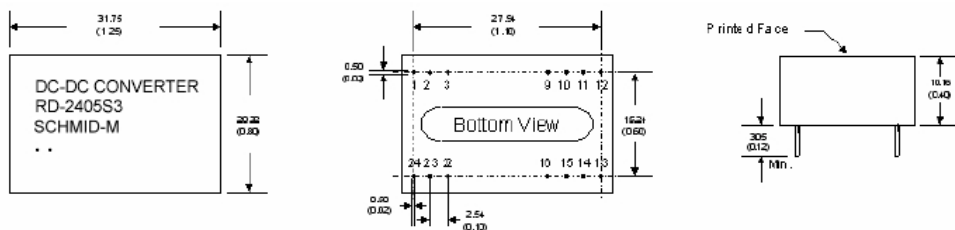
Efficiency 76% ~ 82%
Switching Frequency 100K ~ 400 KHz, Typ.

Environmental Specification:

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

MECHANICAL DIMENSIONS & PIN CONNECTIONS

24 Pin DIL package



Pin #	STANDARD	
	Single	Dual
2	-V Input	-V Input
3	-V Input	-V Input
9	Omitted	Common
11	N.C	-V Output
14	+V Output	+V Output
16	-V Output	Common
22	+V Input	+V Input
23	+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 – RD-S/D6

6 WATT

Single / Dual Output

FEATURES

- 1500 Vdc Isolation (3500 Vdc Isolation available)
- Wide 2:1 Input Range
- 24 Pin DIL Package
- Regulated
- Continuous Short Circuit Protection
- Non-Conductive Plastic Case

Model Number	Input Vdc	Output Vdc	Output Current (mA)	Efficiency @FL (%)
RD-1205S6	9-18	5	1200	77
RD-1209S6		9	667	75
RD-1212S6		12	500	80
RD-1215S6		15	400	80
RD-1224S6		24	250	80
RD-1205D6	9-18	±5	±600	77
RD-1209D6		±9	±334	75
RD-1212D6		±12	±250	80
RD-1215D6		±15	±200	80
RD-1224D6		±24	±125	80
RD-2405S6	18-36	5	1200	80
RD-2409S6		9	667	83
RD-2412S6		12	500	83
RD-2415S6		15	400	83
RD-2424S6		24	250	83
RD-2405D6	18-36	±5	±600	80
RD-2409D6		±9	±334	83
RD-2412D6		±12	±250	83
RD-2415D6		±15	±200	83
RD-2424D6		±24	±125	83
RD-4805S6	36-72	5	1200	80
RD-4809S6		9	667	83
RD-4812S6		12	500	83
RD-4815S6		15	400	83
RD-4824S6		24	250	83
RD-4805D6	36-72	±5	±600	80
RD-4809D6		±9	±334	83
RD-4812D6		±12	±250	83
RD-4815D6		±15	±200	82
RD-4824D6		±24	±125	82

1. Suffix " M " Metal Instead of Plastic case Package.
2. Input Voltage range is from 4.5 V to 72 V and Output Voltage is from 3.3 V to 24 V.

Input Specifications:

Voltage Range 5Vdc, 4.5-9 Vdc, 12Vdc, 9 -18 Vdc., 24Vdc, 18-36 Vdc, 48Vdc, 36-72 Vdc
Filter π (Pi) Network

Isolation Specification:

Rated Voltage 1500 Vdc, Standard
Resistance 1000M Ω Min.
Capacitance 390 pF, Typ.

Output Specifications:

Voltage Accuracy: $\pm 1\%$, Max.
Voltage Balance (Dual Outputs) $\pm 1\%$
Ripple and Noise (at 20 MHz BW) (\pm) 60mVp-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:

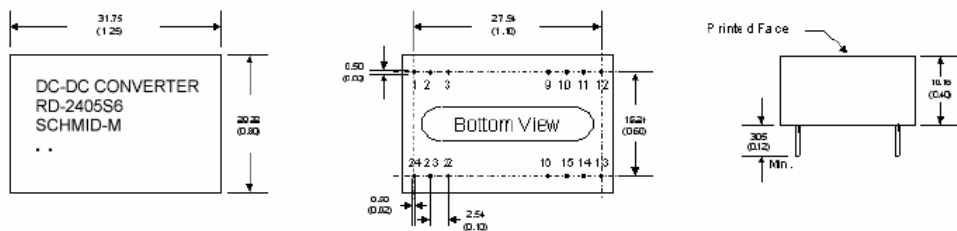
Efficiency 77% ~ 83%
Switching Frequency 100K ~ 400 KHz, Typ.

Environmental Specification:

Operating Temperature (Ambient) -40°C ~ $+71^{\circ}\text{C}$
Case Temperature 100°C Max.
Storage Temperature -40°C ~ $+125^{\circ}\text{C}$
Derating None Required
Humidity Up to 90%, Non-condensing
Cooling Free-air Convection

MECHANICAL DIMENSIONS & PIN CONNECTIONS

24 Pin DIL package



Pin #	STANDARD	
	Single	Dual
2	-V Input	-V Input
3	-V Input	-V Input
9	Omitted	Common
11	N.C.	-V Output
14	+V Output	+V Output
16	-V Output	Common
22	+V Input	+V Input
23	+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.