

D-Series

1W Isolated DC/DC-Converters

- 1kVDC or 3kVDC Isolation
- 7 Pin SIP and 14 Pin DIP Package
- Single, Dual and Dual Separate Output
- Low Ripple and Noise

Selection Guide (See Model Code Information on Page 20)

Ordering Code	Nominal Input Voltage (VDC)	Input Current		Output Voltage (VDC)	Output Current (mA)	Efficiency at Full Load (%)
		No Load (mA)	Full Load (mA)			

1kVDC Single Output

D-0505S-*	5	22	256	5	200	78
D-0512S-*	5	23	256	12	84	78
D-1205S-*	12	14	106	5	200	78
D-1212S-*	12	15	106	12	84	78
D-243.3S-*	24	5	56	3.3	303	74
D-2405S-*	24	7	53	5	200	78
D-2412S-*	24	8	55	12	84	75
D-4805S-*	48	6	29	5	200	70
D-4812S-*	48	5	28	12	84	72

1kVDC Dual Output

D-053.3D-*	5	20	307	±3.3	±150	65
D-0505D-*	5	25	285	±5	±100	70
D-0512D-*	5	23	263	±12	±42	76
D-0515D-*	5	23	256	±15	±34	78
D-1205D-*	12	15	119	±5	±100	70
D-1212D-*	12	15	106	±12	±42	78
D-243.3D-*	24	6	61	±3.3	±150	68
D-2405D-*	24	6	56	±5	±100	74
D-247.2D-*	24	7	55	±7.2	±69	76
D-2412D-*	24	7	54	±12	±42	76
D-4805D-*	48	6	32	±5	±100	65
D-4812D-*	48	6	29	±12	±42	71
D-4815D-*	48	6	28	±15	±34	72

* Select on Inquiry Form SIP7 (Suffix 'S') or DIP14 (Suffix 'D') package size, see model code information on page 20.

Continued on next Page.

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Selection Guide (See Model Code Information on Page 20)

Ordering Code	Nominal Input Voltage (VDC)	Input Current		Output Voltage (VDC)	Output Current (mA)	Efficiency at Full Load (%)
		No Load (mA)	Full Load (mA)			

1kVDC Dual Separate Output

D-050505D-*	5	18	277	5 / 5	100 / 100	72
D-050515D-*	5	20	250	5 / 15	100 / 33	80
D-120505D-*	12	14	117	5 / 5	100 / 100	71
D-120512D-*	12	13	108	5 / 12	100 / 42	77
D-120515D-*	12	17	112	5 / 15	100 / 33	74
D-240505D-*	24	6	58	5 / 5	100 / 100	71

3kVDC Single Output

D-0505SH-*	5	22	256	5	200	78
D-0512SH-*	5	23	256	12	84	78
D-0515SH-*	5	20	250	15	67	80
D-1205SH-*	12	14	106	5	200	78
D-1212SH-*	12	15	111	12	84	75
D-2405SH-*	24	7	53	5	200	78
D-2412SH-*	24	8	55	12	84	75
D-2415SH-*	24	8	53	15	67	78

3kVDC Dual Output

D-053.3DH-*	5	20	307	±3.3	±150	65
D-0505DH-*	5	25	285	±5	±100	70
D-1205DH-*	12	15	119	±5	±100	70
D-1212DH-*	12	15	106	±12	±42	78
D-2405DH-*	24	6	57	±5	±100	72
D-247.2DH-*	24	7	55	±7.2	±69	76
D-2412DH-*	24	8	54	±12	±42	77

* Select on Inquiry Form SIP7 (Suffix 'S') or DIP14 (Suffix 'S') package size, see model code information on page 20.

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1W Isolated DC/DC-Converters

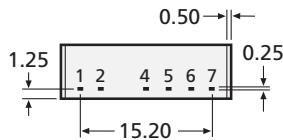
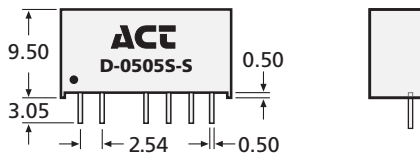
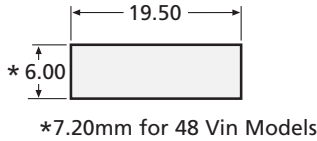
Specifications – Typical at +25°C, Unless Otherwise Noted

Voltage Range	±10%	Switching Frequency	125 kHz, typ.
Filter	Capacitors	Operating Temperature	-40°C to +85°C
Rated Voltage	1000 VDC		-40°C to +71°C (no derating)
Leakage Current	1 mA	Storage Temperature	-55°C to +125°C
Resistance	10 ⁹ Ω	Derating	None Required
Capacitance	60 pF, typ.	Humidity	Up to 90%, Non-condensing
Voltage Accuracy	±5%, Max.	Cooling	Free-air Convection
Voltage Balance (Dual Outputs)	±1%	Dimensions	SIP7 19.5 x 6 x 9.5 mm 0.76 x 0.24 x 0.37"
Ripple and Noise (at 20 MHz BW)	75 mVp-p, max.		DIP14 20.32 x 10.16 x 6.85 mm 0.80 x 0.40 x 0.27"
Short Circuit Protection	Momentary	Weight	05 to 24Vin types 2 g 48Vin types 3 g
Line Voltage Regulation	±1.2% / 1.0% of Vin	Case Material	Non-conductive Black Plastic
Load Voltage Regulation	±8%, load = 20-100%		
Temperature Coefficient	±0.02% / °C		
Efficiency	70% to 85%		

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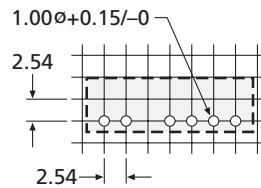
SIP7 Package Style and Pinning (mm)



Pin Connections

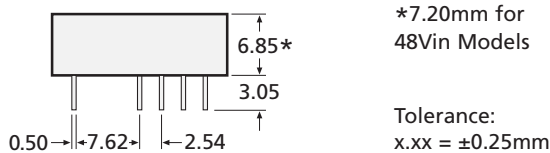
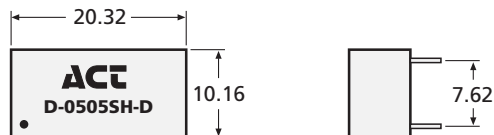
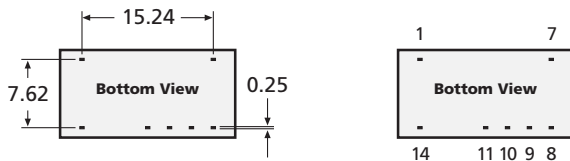
Pin #	1kVDC Standard		Dual Separate	3kVDC	
	Single	Dual		Single	Dual
1	+Vin	+Vin	+Vin	+Vin	+Vin
2	-Vin	-Vin	-Vin	-Vin	-Vin
4	-Vout	-Vout	+V1out	Omitted	Omitted
5	Omitted	Common	-V1out	-Vout	-Vout
6	+Vout	+Vout	+V2out	Omitted	Common
7	Omitted	Omitted	-V2out	+Vout	+Vout

Recommended Footprint Details

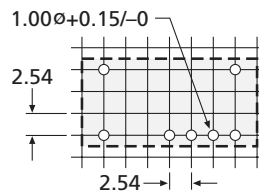


Tolerance:
x.xx = ±0.25mm

DIP14 Package Style and Pinning (mm)



Recommended Footprint Details



Pin Connections

Pin #	1kVDC Standard		Dual Separate	3kVDC	
	Single	Dual		Single	Dual
1	-Vin	-Vin	-Vin	-Vin	-Vin
7	NC	NC	NC	NC	NC
8	Omitted	Common	-V2out	+Vout	+Vout
9	+Vout	+Vout	+V2out	Omitted	Common
10	Omitted	Omitted	-V1out	-Vout	-Vout
11	-Vout	-Vout	+V1out	Omitted	Omitted
14	+Vin	+Vin	+Vin	+Vin	+Vin

D-Series

1W Isolated DC/DC-Converters

Model Code Information

		D - * * * - *					
Series	=	D					
Input Voltages							
05	=	5VDC					
12	=	12VDC					
24	=	24VDC					
48	=	48VDC					
Output Voltages							
Single Models							
05	=	5VDC					
12	=	12VDC					
15	=	15VDC					
Dual Models							
3.3	=	±3.3VDC					
05	=	±5VDC					
7.2	=	±7.2VDC					
12	=	±12VDC					
15	=	±15VDC					
Dual Separate Models							
0505	=	5/5VDC					
0512	=	5/12VDC					
0515	=	5/15VDC					
						Package Size	
						S	= SIP7
						D	= DIP14
						Output	
						S	= Single 1kVDC
						SH	= Single 3kVDC
						D	= Dual 1kVDC
						DH	= Dual 3kVDC

Ordering Examples: For availability see Selection Guides on pages 16 and 17

- D-0512S-S = D-series, 5VDC input, 12VDC output, single output, 1kVDC isolation, SIP7 package size
- D-053.3DH-D = D-series, 5VDC input, 3.3VDC output, dual output, 3kVDC, DIP14 package size
- D-120512D-S = D-series, 12VDC input, 05/12VDC separate output, dual output, 3kVDC, SIP7 package size