

A-Series

0.5 - 1W Isolated DC/DC-Converters



- 1kVDC or 3kVDC Isolation
- 4 Pin SIP and 8 Pin DIP Package
- Single, Dual and Dual Separate Output
- Low Ripple and Noise

Selection Guide (See Model Code Information on Page 6)

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

0.5W, 1kVDC, Single Output

A0.5-053.3S-*	5	11	132	3.3	150	76
A0.5-0505S-*	5	11	128	5	100	78
A0.5-057.2S-*	5	15	135	7	70	74
A0.5-0512S-*	5	18	133	12	42	76
A0.5-1205S-*	12	12	56	5	100	74
A0.5-1212S-*	12	12	55	12	42	76
A0.5-2405S-*	24	8	29	5	100	72

1W, 1kVDC, Single Output

A1-053.3S-	5	16	267	3.3	300	75
A1-0505S-*	5	25	259	5	200	77
A1-057.2S-*	5	16	250	7.2	140	80
A1-0512S-*	5	25	312	12	100	77
A1-1205S-*	12	16	107	5	200	78
A1-1212S-*	12	15	128	12	100	78
A1-2405S-*	24	8	53	5	200	78

* Select on Inquiry Form SIP4 (Suffix 'S') or DIP8 (Suffix 'D') package size, see model code information on page 6.

Continued on next Page.

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Selection Guide (See Model Code Information on Page 6)

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

1W, 1kVDC, Dual Output

A1-0505D-D	5	22	278	±5	±100	72
A1-0512D-D	5	25	308	±12	±50	78
A1-0515D-D	5	25	256	±15	±35	78
A1-1205D-D	12	15	119	±5	±100	70
A1-1212D-D	12	18	128	±12	±50	78
A1-2405D-D	24	7	60	±5	±100	70
A1-2412D-D	24	8	64	±12	±50	78
A1-2415D-D	24	8	56	±15	±35	75

1W, 1kVDC, Dual Separate Output

A1-050505D-D	5	21	256	5	5	100	100	78
A1-051515D-D	5	25	256	15	15	35	35	78
A1-120505D-D	12	14	117	5	5	100	100	71
A1-121212D-D	12	15	125	12	12	50	50	80
A1-121515D-D	12	16	108	15	15	35	35	77
A1-240505D-D	24	8	52	5	5	100	100	80

1W / 3kVDC Isolation, Single Output

A1-0505SH-*	5	25	259	5	200	78
A1-0512SH-*	5	25	312	12	100	77
A1-0515SH-*	5	20	250	15	70	80
A1-1205SH-*	12	13	107	5	200	77
A1-1212SH-*	12	15	128	12	100	78
A1-2405SH-*	24	8	55	5	200	76
A1-2412SH-*	24	8	64	12	100	78
A1-2415SH-*	24	8	55	15	70	76

* Select on Inquiry Form 'SIP4' (Suffix 'S') or DIP8 (Suffix 'D') package size, see model code information on page 6.

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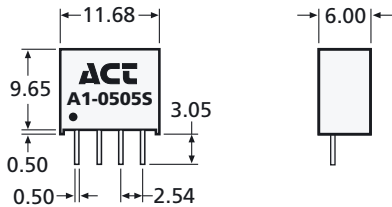
Specifications – Typical at +25°C, Unless Otherwise Noted

Voltage Range	±10%	Efficiency	75% to 85%	
Filter	Capacitors	Switching Frequency	80 kHz, typ.	
Rated Voltage	1000 VDC	Operating Temperature (Ambient)	-40°C to +85°C	
Leakage Current	1mA	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	SIP4	11.68 x6.00 x 10.16 mm 0.46 x 0.24 x 0.40"
Ripple and Noise (at 20 MHz BW)	100 mVp-p, max.		DIP8	12.70 x10.16 x 6.85 mm 0.50 x 0.40 x 0.27"
Short Circuit Protection	Momentary	Weight	1.8g	
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			

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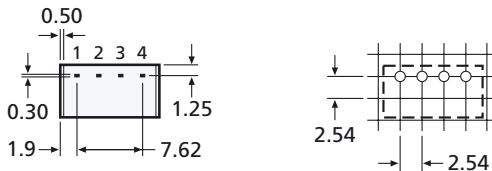
SIP4 Package Style and Pinning (mm)



Pin Connections

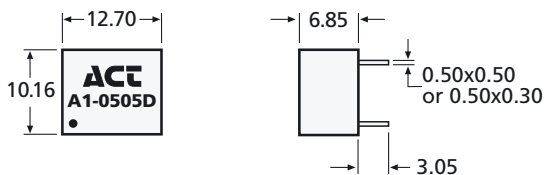
Pin #	Single
1	-Vin
2	+Vin
3	-Vout
4	+Vout

Recommended Footprint Details



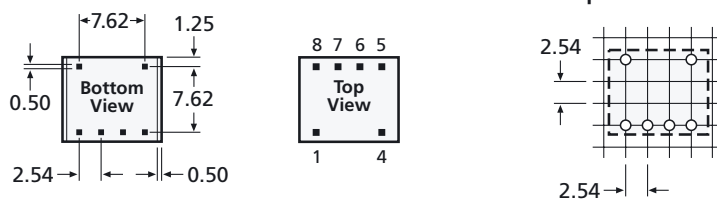
Tolerance:
x.xx = ± 0.25 mm

DIP8 Package Style and Pinning (mm)



Tolerance:
x.xx = ± 0.25 mm

Recommended Footprint Details



Pin Connections

Pin #	Single	Dual	Dual Separate
1	-Vin	-Vin	-Vin
4	+Vin	+Vin	+Vin
5	+Vout	+Vout	+V1out
6	Omitted	Omitted	-V1out
7	-Vout	Common	+V2out
8	Omitted	-Vout	-V2out

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Model Code Information

		A* - * * * - *			
Series					
A0.5	=	0.5W			
A1	=	1W			
Input Voltages					
05	=	5VDC			
12	=	12VDC			
24	=	24VDC			
Output Voltages					
Single Models					
3.3	=	3.3VDC			
05	=	5VDC			
7.2	=	7.2VDC			
12	=	12VDC			
15	=	15VDC			
Dual Models					
05	=	±5VDC			
12	=	±12VDC			
15	=	±15VDC			
Dual Separate Models					
05/05	=	5/5VDC			
12/12	=	12/12VDC			
15/15	=	15/15VDC			
				Package Size	
				S	= SIP4
				D	= DIP8
				Output	
				S	= Single 1kVDC
				SH	= Single 3kVDC
				D	= Dual 1kVDC

Ordering Examples: For availability see Selection Guides on pages 2 and 3

A0.5-0512S-S = A-series 0.5Watt, 5VDC input, 12VDC output, single output, 1kVDC isolation, SIP4 package size

A1-0512SH-D = A-series 1Watt, 5VDC input, 12VDC output, single output, 3kVDC isolation, DIP8 package size

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