Series AM1/4S-Z

0.25 Watt | DC-DC Converter



FEATURES:

- RoHS compliant
- 4 Pin SIP Package
- Low ripple and noise
- High efficiency up to 72%
- Operating temperature -40°C to + 85°C
- Input / Output isolation 1000 and 3000VDC
- Pin compatible with multiple manufacturers

Models

Single output

RoHS

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Max Capacitive Load (uF)	Efficiency (%)
AM1/4S-0503SZ	4.5-5.5	3.3	75.7	1000	100	66
AM1/4S-0505SZ	4.5-5.5	5	50	1000	100	66
AM1/4S-0507SZ	4.5-5.5	7.2	34.72	1000	100	66
AM1/4S-0509SZ	4.5-5.5	9	27.77	1000	100	68
AM1/4S-0512SZ	4.5-5.5	12	20.83	1000	100	68
AM1/4S-0515SZ	4.5-5.5	15	16.67	1000	100	68
AM1/4S-0518SZ	4.5-5.5	18	13.88	1000	100	68
AM1/4S-0524SZ	4.5-5.5	24	10.41	1000	100	70
AM1/4S-1203SZ	10.8-13.2	3.3	75.7	1000	100	66
AM1/4S-1205SZ	10.8-13.2	5	50	1000	100	67
AM1/4S-1207SZ	10.8-13.2	7.2	34.72	1000	100	68
AM1/4S-1209SZ	10.8-13.2	9	27.77	1000	100	68
AM1/4S-1212SZ	10.8-13.2	12	20.83	1000	100	68
AM1/4S-1215SZ	10.8-13.2	15	16.67	1000	100	69
AM1/4S-1218SZ	10.8-13.2	18	13.88	1000	100	70
AM1/4S-1224SZ	10.8-13.2	24	10.41	1000	100	72
AM1/4S-1505SZ	13.5 – 16.5	5	50	1000	100	70
AM1/4S-2403SZ	21.6-26.4	3.3	75.7	1000	100	67
AM1/4S-2405SZ	21.6-26.4	5	50	1000	100	67
AM1/4S-2407SZ	21.6-26.4	7.2	34.72	1000	100	67
AM1/4S-2409SZ	21.6-26.4	9	27.77	1000	100	69
AM1/4S-2412SZ	21.6-26.4	12	20.83	1000	100	69
AM1/4S-2415SZ	21.6-26.4	15	16.67	1000	100	69
AM1/4S-2418SZ	21.6-26.4	18	13.88	1000	100	69
AM1/4S-2424SZ	21.6-26.4	24	10.41	1000	100	69
AM1/4S-0503SH30Z	4.5-5.5	3.3	75.7	3000	100	66
AM1/4S-0505SH30Z	4.5-5.5	5	50	3000	100	66
AM1/4S-0507SH30Z	4.5-5.5	7.2	34.72	3000	100	66
AM1/4S-0509SH30Z	4.5-5.5	9	27.77	3000	100	68
AM1/4S-0512SH30Z	4.5-5.5	12	20.83	3000	100	68
AM1/4S-0515SH30Z	4.5-5.5	15	16.67	3000	100	68
AM1/4S-0518SH30Z	4.5-5.5	18	13.88	3000	100	68
AM1/4S-0524SH30Z	4.5-5.5	24	10.41	3000	100	70
AM1/4S-1203SH30Z	10.8-13.2	3.3	75.7	3000	100	66
AM1/4S-1205SH30Z	10.8-13.2	5	50	3000	100	67
AM1/4S-1207SH30Z	10.8-13.2	7.2	34.72	3000	100	68
AM1/4S-1209SH30Z	10.8-13.2	9	27.77	3000	100	68
AM1/4S-1212SH30Z	10.8-13.2	12	20.83	3000	100	68
AM1/4S-1215SH30Z	10.8-13.2	15	16.67	3000	100	69
AM1/4S-1218SH30Z	10.8-13.2	18	13.88	3000	100	70
AM1/4S-1224SH30Z	10.8-13.2	24	10.41	3000	100	72
AM1/4S-2403SH30Z	21.6-26.4	3.3	75.7	3000	100	67
AM1/4S-2405SH30Z	21.6-26.4	5	50	3000	100	67
AM1/4S-2407SH30Z	21.6-26.4	7.2	34.72	3000	100	67
AM1/4S-2409SH30Z	21.6-26.4	9	27.77	3000	100	69
AM1/4S-2412SH30Z	21.6-26.4	12	20.83	3000	100	69
AM1/4S-2415SH30Z	21.6-26.4	15	16.67	3000	100	69
AM1/4S-2418SH30Z	21.6-26.4	18	13.88	3000	100	69
AM1/4S-2424SH30Z	21.6-26.4	24	10.41	3000	100	69

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	5	4.5-5.5		VDC
	12	10.8-13.2		
	15	13.5 – 16.5		
	24	21.6-26.4		
Filter		Capacitor		
Turn on transient process time			25	ms
Start up time		200		ms
Absolute maximum rating	5 Vin	7		VDC
	12 Vin	15		
	15 Vin	17		
	24 Vin	28		
Peak input voltage time		100		ms

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	3 sec		1000 and 3000	VDC
Resistance		> 1000		MOhm
Capacitance		60		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±3		%
Short circuit protection		Momentary (1sec)		
Line voltage regulation	For 1% change of Vin	±1.2		% of Vin
Load voltage regulation	Load 20 – 100%	±10		%
Load voltage regulation 3.3V output model	Load 20 – 100%	±20		%
Temperature coefficient		±0.02		%/°C
Ripple & noise	At 20MHz Bandwidth	100		mV p-p
Capacitive load			100	µF
Rising time		50		ms

General Specifications

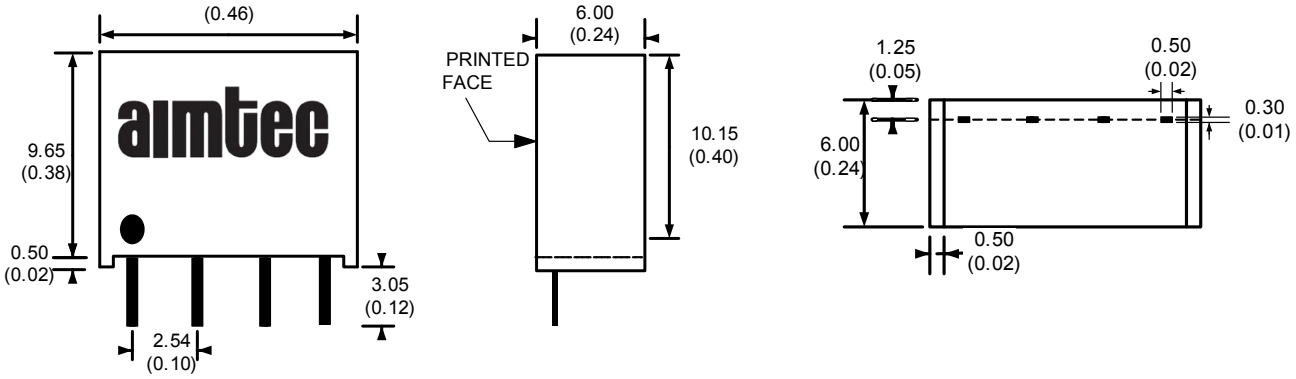
Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	80		KHz
Operating temperature	Without derating	-40 to +85		°C
Storage temperature		-40 to +125		°C
Maximum case temperature			100	°C
Cooling		Free air convection		
Humidity			95	%
Case material		Non-conductive black plastic		
Weight		1.5		g
Dimensions (Lx W x H)		0.46 x 0.24 x 0.38 inches 11.68 x 6.00 x 9.65 mm		
MTBF		>2 010 000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C)		

NOTE: All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified

Pin Out Specifications

Pin	Single
1	- V Input
2	+V Input
3	- V Output
4	+V Output

Dimensions



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