



FEATURES:

- RoHS compliant
- High efficiency up to 76%
- Low profile plastic package
- 7 pin SIP package
- Operating temperature -40°C to + 85°C
- Continuous short circuit protection
- Pin compatible with multiple manufacturers
- Up to 3000VDC Isolation



Models
Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Efficiency (%)
AM1DS-0303S-NZ	3.0-3.6	3.3	303	1000	68
AM1DS-0305S-NZ	3.0-3.6	5	200	1000	70
AM1DS-0505S-NZ	4.5-5.5	5	200	1000	73
AM1DS-0509S-NZ	4.5-5.5	9	112	1000	73
AM1DS-0512S-NZ	4.5-5.5	12	83	1000	75
AM1DS-0515S-NZ	4.5-5.5	15	67	1000	75
AM1DS-0524S-NZ	4.5-5.5	24	42	1000	76
AM1DS-1205S-NZ	10.8-13.2	5	200	1000	73
AM1DS-1209S-NZ	10.8-13.2	9	112	1000	72
AM1DS-1212S-NZ	10.8-13.2	12	83	1000	75
AM1DS-1215S-NZ	10.8-13.2	15	67	1000	76
AM1DS-1515S-NZ	13.5-16.5	15	67	1000	75
AM1DS-2403S-NZ	21.6-26.4	3.3	303	1000	70
AM1DS-2405S-NZ	21.6-26.4	5	200	1000	70
AM1DS-2412S-NZ	21.6-26.4	12	83	1000	75
AM1DS-2415S-NZ	21.6-26.4	15	67	1000	76
AM1DS-0305SH30-NZ	3.0-3.6	5	200	3000	70
AM1DS-0505SH30-NZ	4.5-5.5	5	200	3000	73
AM1DS-0512SH30-NZ	4.5-5.5	12	83	3000	75
AM1DS-0515SH30-NZ	4.5-5.5	15	67	3000	75
AM1DS-0524SH30-NZ	4.5-5.5	24	42	3000	76
AM1DS-1205SH30-NZ	10.8-13.2	5	200	3000	73
AM1DS-1212SH30-NZ	10.8-13.2	12	83	3000	75
AM1DS-2405SH30-NZ	21.6-26.4	5	200	3000	70

Models
Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (Ma)	Isolation (VDC)	Efficiency (%)
AM1DS-0505D-NZ	4.5-5.5	±5	±100	1000	69
AM1DS-0509D-NZ	4.5-5.5	±9	±56	1000	73
AM1DS-0512D-NZ	4.5-5.5	±12	±42	1000	74
AM1DS-0515D-NZ	4.5-5.5	±15	±34	1000	74
AM1DS-0524D-NZ	4.5-5.5	±24	±21	1000	76
AM1DS-1205D-NZ	10.8-13.2	±5	±100	1000	70
AM1DS-1212D-NZ	10.8-13.2	±12	±42	1000	76
AM1DS-1215D-NZ	10.8-13.2	±15	±34	1000	76
AM1DS-2405D-NZ	21.6-26.4	±5	±100	1000	68
AM1DS-2412D-NZ	21.6-26.4	±12	±42	1000	76
AM1DS-2415D-NZ	21.6-26.4	±15	±34	1000	76
AM1DS-0505DH30-NZ	4.5-5.5	±5	±100	3000	69
AM1DS-0512DH30-NZ	4.5-5.5	±12	±42	3000	74
AM1DS-0515DH30-NZ	4.5-5.5	±15	±34	3000	74
AM1DS-1212DH30-NZ	10.8-13.2	±12	±42	3000	76

Models

Dual output (continued)

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (Ma)	Isolation (VDC)	Efficiency (%)
AM1DS-1215DH30-NZ	10.8-13.2	±15	±34	3000	76
AM1DS-2405DH30-NZ	21.6-26.4	±5	±100	3000	70
AM1DS-2412DH30-NZ	21.6-26.4	±12	±42	3000	76

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.

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	3.3	3.0-3.6		VDC
	5	4.5-5.5		
	12	10.8-13.2		
	15	13.5-16.5		
	24	21.6-26.4		
Filter	Capacitor			
Start up time				ms
Absolute Maximum Rating	3.3		7	VDC
	5		9	
	12		18	
	15		21	
	24		30	
Peak Input Voltage time			1	s
No Load Input Current			50	mA

Isolation Specifications

Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage	60 sec	1000, 3000		VDC
Resistance		> 1000		MOhm
Capacitance		15		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±5		%
Short Circuit protection		Continuous		
Short circuit restart		Auto recovery		
Line voltage regulation	For 1.0% change of Vin	±1.5		% of Vin
Load voltage regulation	load 10~100%	20%		%
Temperature coefficient		±0.03		%/°C
Ripple & Noise	20MHz Bandwidth	200		mV p-p
Minimum Load Current		10		% of Max

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	100		KHz
Operating temperature		-40 to +85		°C
Storage temperature		-55 to +125		°C
Maximum case temperature			100	°C
Derating		Not-Required		
Cooling		Free air convection		
Humidity			95	% RH
Case material		Non-conductive black plastic (UL94V-0 rated)		
Weight		2.3		g

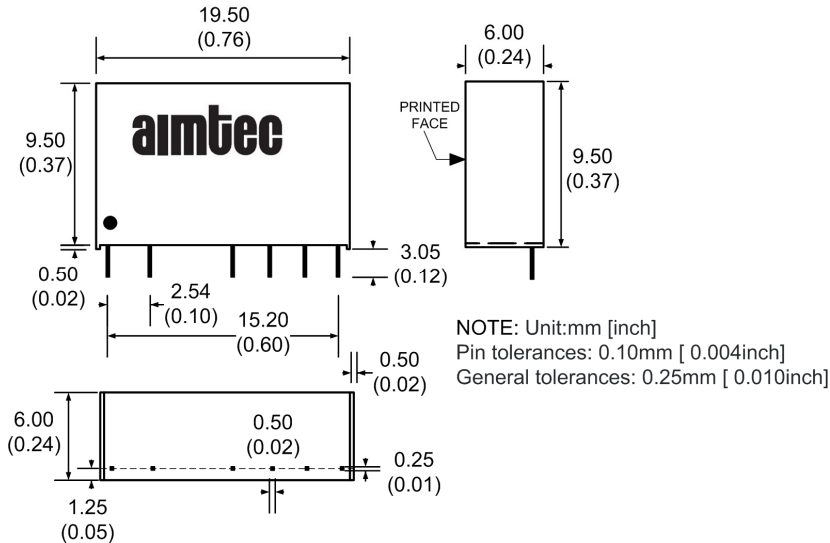
General Specifications (continued)

Parameters	Conditions	Typical	Maximum	Units
Dimensions (L x W x H)		0.77 x 0.24 x 0.37 inches	19.5 x 6.00 x 9.35 mm	
MTBF		>1 940 000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C)		
Maximum soldering temperature	1.5 mm from case for 10sec		300	°C

Pin Out Specifications

Pin	1000 VDC		3000VDC	
	Single	Dual	Single	Dual
1	+ V Input	+ V Input	+ V Input	+ V Input
2	- V Input	- V Input	- V Input	- V Input
4	- V Output	- V Output	No pin	No pin
5	No pin	Common	- V Output	- V Output
6	+ V Output	+ V Output	No pin	Common
7	No pin	No pin	+ V Output	+ V Output

Dimensions



NOTE: 1. Datasheets are updated as needed and as such, specifications are subject to change without notice. Once printed or downloaded, datasheets are no longer controlled by Aimtec; refer to www.aimtec.com for the most current product specifications. 2. Product labels shown, including safety agency certifications on labels, may vary based on the date manufactured. 3. Mechanical drawings and specifications are for reference only. 4. All specifications are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified. 5. Aimtec may not have conducted destructive testing or chemical analysis on all internal components and chemicals at the time of publishing this document. CAS numbers and other limited information are considered proprietary and may not be available for release. 6. This product is not designed for use in critical life support systems, equipment used in hazardous environments, nuclear control systems or other such applications which necessitate specific safety and regulatory standards other the ones listed in this datasheet. 7. Warranty is in accordance with Aimtec's standard Terms of Sale available at www.aimtec.com.