

FEATURES:



- RoHS compliant
- Full SMD internal technology
- Wide 2:1 input range
- High efficiency up to 88%
- Pin compatible with multiple manufacturers
- Operating temperature -40°C to + 85°C
- Input/Output Isolation 1500VDC
- Continuous short circuit protection
- Low profile metal package

Models Single output



Model	Input Voltage (V)	Output Voltage (V)	Output Current max (A)	Capacitive load, max (µF)	Efficiency (%)
AM15E-1203SZ	9-18	3.3	3	3300	79
AM15E-1205SZ	9-18	5	3	3300	83
AM15E-1207SZ	9-18	7.2	2	2200	83
AM15E-1209SZ	9-18	9	1.66	1000	83
AM15E-1212SZ	9-18	12	1.25	1000	85
AM15E-1215SZ	9-18	15	1	680	85
AM15E-1218SZ	9-18	18	0.8	470	83
AM15E-1224SZ	9-18	24	0.62	470	85
AM15E-2403SZ	18-36	3.3	3	3300	80
AM15E-2405SZ	18-36	5	3	3300	85
AM15E-2407SZ	18-36	7.2	2	2200	84
AM15E-2409SZ	18-36	9	1.66	1000	85
AM15E-2412SZ	18-36	12	1.25	1000	86
AM15E-2415SZ	18-36	15	1	680	88
AM15E-2418SZ	18-36	18	0.8	470	86
AM15E-2424SZ	18-36	24	0.62	470	86
AM15E-4803SZ	36-72	3.3	3	3300	80
AM15E-4805SZ	36-72	5	3	3300	85
AM15E-4807SZ	36-72	7.2	2	2200	85
AM15E-4809SZ	36-72	9	1.66	1000	85
AM15E-4812SZ	36-72	12	1.25	1000	88
AM15E-4815SZ	36-72	15	1	680	87
AM15E-4818SZ	36-72	18	0.8	470	86
AM15E-4824SZ	36-72	24	0.62	470	85

Models Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (A)	Capacitive load, max (µF)	Efficiency (%)
AM15E-1203DZ	9-18	±3.3	±2	±1000	79
AM15E-1205DZ	9-18	±5	±1.5	±1000	83
AM15E-1207DZ	9-18	±7.2	±1	±680	82
AM15E-1209DZ	9-18	±9	±0.83	±470	82
AM15E-1212DZ	9-18	±12	±0.62	±470	85
AM15E-1215DZ	9-18	±15	±0.5	±330	85
AM15E-1218DZ	9-18	±18	±0.4	±220	82
AM15E-1224DZ	9-18	±24	±0.31	±220	85
AM15E-2403DZ	18-36	±3.3	±2	±1000	80
AM15E-2405DZ	18-36	±5	±1.5	±1000	85
AM15E-2407DZ	18-36	±7.2	±1	±680	82
AM15E-2409DZ	18-36	±9	±0.83	±470	82

Models

Dual output (continued)

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (A)	Capacitive load, max (µF)	Efficiency (%)
AM15E-2412DZ	18-36	±12	±0.62	±470	86
AM15E-2415DZ	18-36	±15	±0.5	±330	87
AM15E-2418DZ	18-36	±18	±0.4	±220	82
AM15E-2424DZ	18-36	±24	±0.31	±220	86
AM15E-4803DZ	36-72	±3.3	±2	±1000	80
AM15E-4805DZ	36-72	±5	±1.5	±1000	85
AM15E-4807DZ	36-72	±7.2	±1	±680	85
AM15E-4809DZ	36-72	±9	±0.83	±470	85
AM15E-4812DZ	36-72	±12	±0.62	±470	86
AM15E-4815DZ	36-72	±15	±0.5	±330	85
AM15E-4818DZ	36-72	±18	±0.4	±220	84
AM15E-4824DZ	36-72	±24	±0.31	±220	85

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	12	9-18		VDC
	24	18-36		
	48	36-72		
Filter	π (Pi) Network			
Start up time		20		ms
Absolute Maximum Rating	12 Vin	-0.7-24		VDC
	24 Vin	-0.7-40		
	48 Vin	-0.7-80		
Peak Input Voltage time		100		ms

Isolation Specifications

Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage	3 sec	1500		VDC
Resistance		> 1000		MOhm
Capacitance		470		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±1		%
Voltage balance (Dual output model)	Balanced load	±1		%
Short Circuit protection	Continuous			
Short circuit restart	Auto Recovery			
Current limiting		120		%
Line voltage regulation (Single)	HL-LL	±0.5		%
Line voltage regulation (Dual)	HL-LL	±0.5		%
Load voltage regulation (Single)	10-100% load	±0.5		%
Load voltage regulation (Dual)	10-100% load	±0.5		%
Temperature coefficient		±0.02		%/°C
Ripple & Noise	At 20MHz Bandwidth	100		mV p-p
Rising time		10		ms

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	200		KHz
Operating temperature	derating above 71°C	-40 to +85		°C
Storage temperature		-40 to +125		°C
Maximum case temperature			100	°C
Cooling		Free air convection		
Humidity			95	%
Case material		Nickel coated copper		
Potting material		UL94V-0 rated		
Weight		30		g
Dimensions (L x W x H)	Tolerance ±0.5mm	2.00 x 1.00 x 0.40 inches	50.80 x 25.40 x 10.16 mm	
MTBF		> 1,121,000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C)		
Transient recovery time	At nominal input, 25% load step change (75% - 50% -25% of Iout)	350		mS

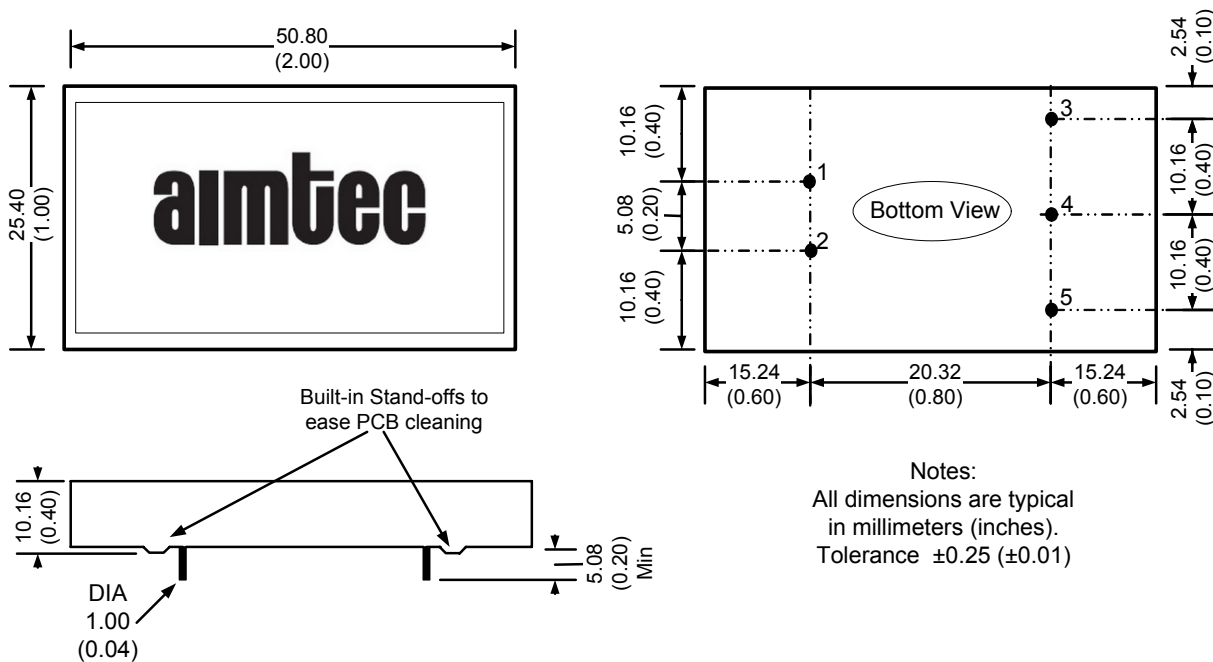
Safety Specifications

Parameters	
Agency approvals	CE
Standards	EN 55022 (Radiated) – Class A; EN 55024 – Class A; IEC61000-4-2 ; IEC61000-4-3 NOTE: Also designed to meet IEC60950-1:2001

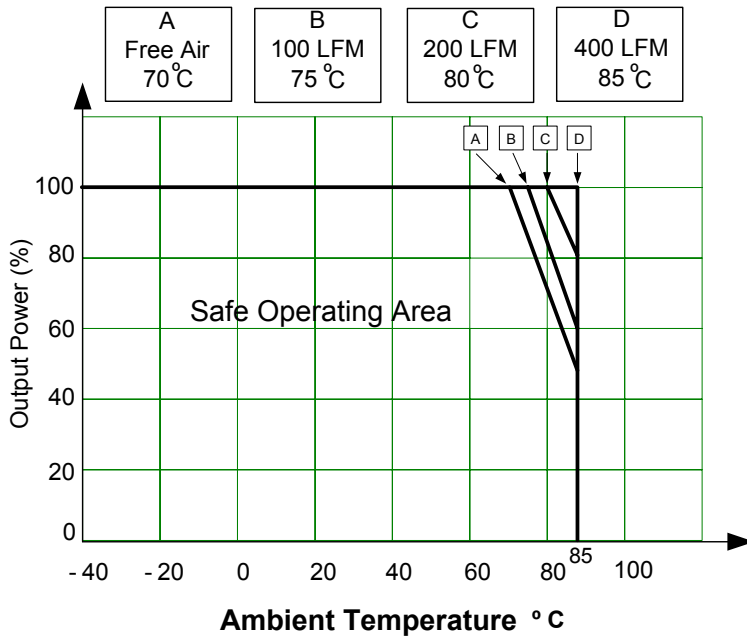
Pin Out Specifications

Pin	1500VDC	
	Single	Dual
1	+V Input	+V Input
2	-V Input	-V Input
3	+V Output	+V Output
4	No Pin	Common
5	-V Output	-V Output

Dimensions:



Derating



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