



**THE DATASHEET OF
AM10T-2405SZ**



FEATURES:



- Wide 2:1 input range
- Efficiency up to 90%
- Over Current Protection
- Continuous Short Circuit Protection
- Operating temperature -40°C to + 85°C
- Over voltage Protection
- Input / Output Isolation 1500VDC
- Soft Start

Models Single output



Model	Input Voltage (V)	Input current NL FL (mA)	Output Voltage (Vdc)	Output Current max (A)	Isolation (VDC)	Max Capacitive Load(μF)	Efficiency (%)
AM10T-1202SZ	9-18	10 791	2.5	3	1500	2200	81
AM10T-1203SZ	9-18	10 1006	3.3	3	1500	2200	84
AM10T-1205SZ	9-18	10 992	5	2	1500	2200	86
AM10T-1212SZ	9-18	10 980	12	0.833	1500	820	87
AM10T-1215SZ	9-18	10 958	15	0.667	1500	470	89
AM10T-2402SZ	18-36	10 381	2.5	3	1500	2200	84
AM10T-2403SZ	18-36	10 497	3.3	3	1500	2200	85
AM10T-2405SZ	18-36	10 479	5	2	1500	2200	89
AM10T-2412SZ	18-36	10 485	12	0.833	1500	820	88
AM10T-2415SZ	18-36	10 485	15	0.667	1500	470	88
AM10T-4802SZ	36-75	10 191	2.5	3	1500	2200	84
AM10T-4803SZ	36-75	10 249	3.3	3	1500	2200	85
AM10T-4805SZ	36-75	10 242	5	2	1500	2200	88
AM10T-4812SZ	36-75	10 245	12	0.833	1500	820	87
AM10T-4815SZ	36-75	10 242	15	0.667	1500	470	88

Models Dual output

Model	Input Voltage (V)	Input current NL FL (mA)	Output Voltage (V)	Output Current max (A)	Isolation (VDC)	Max Capacitive Load(μF)	Efficiency (%)
AM10T-1212DZ	9-18	10 980	±12	±0.416	1500	±220	87
AM10T-1215DZ	9-18	10 969	±15	±0.333	1500	±150	88
AM10T-2412DZ	18-36	10 485	±12	±0.416	1500	±220	88
AM10T-2415DZ	18-36	10 474	±15	±0.333	1500	±150	90
AM10T-4812DZ	36-75	10 245	±12	±0.416	1500	±220	87
AM10T-4815DZ	36-75	10 245	±15	±0.333	1500	±150	87

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	36-75		
Filter	π (Pi) Network			
Startup time	Nominal Vin and constant resistive load		20	ms
Absolute Maximum Rating	12 Vin	-0.7-25		VDC
	24 Vin	-0.7-50		
	48 Vin	-0.7-100		

Peak Input Voltage time			100	ms
Input reflected current *		20		mA p-p

* The input reflected ripple current should be measured with connected 12µH inductor.

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec		1500	VDC
Case/ Input & Output	60 sec		1000	VDC
Resistance		>1000		MOhm
Capacitance		1000		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±1		%
Cross Regulation (Dual Output)	25% -100% load on one output, 100% load on second	±5		%
Over voltage protection		Zener diode clamp		
Over current protection	Full Load	150		%
Short Circuit protection		Continuous, hiccup		
Short circuit restart		Auto recovery		
Line voltage regulation	HL-LL		±0.5	%
Load voltage regulation	0% Load to Full Load , Single 5V / 12V / 15V Output	±0.5		%
	0% Load to Full Load, Other models	±1.0		
Temperature coefficient		±0.02		%/°C
Ripple & Noise *	20MHz Bandwidth		75	mV p-p

* Measured with 1µF CC.

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	330		KHz
Operating temperature	Full Load with derating above 60°C	-40 to +85		°C
Storage temperature		-40 to +125		°C
Maximum case temperature			100	°C
Derating	Above 60°C	2.5		%/°C
Cooling		Free air convection		
Humidity			95	% RH
Case material		Nickel-coated Copper		
Potting material		UL94V-0 rated		
Weight		17		g
Dimensions (L x W x H)		1.25 x 0.80 x 0.40 inches 31.75 x 20.32 x 10.16 mm		
MTBF		>1 000 000 hrs (MIL-HDBK -217F, Ground Benign, t _v +25°C)		
Manual soldering temperature	1.5mm from case for 10 sec		260	°C
Transient recovery time	25% load step (75%-50%-25%)	200		µs
Transient recovery deviation	25% load step (75%-50%-25%)	±3		%

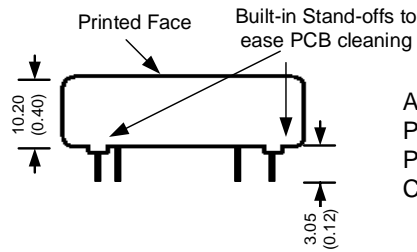
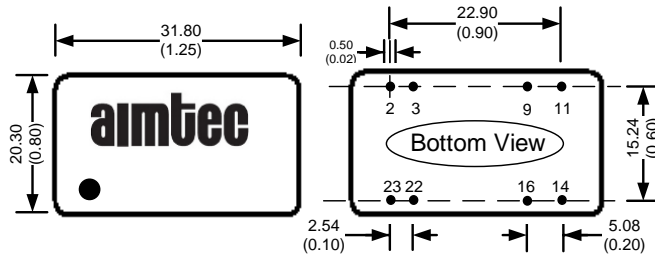
Safety Specifications

Parameters	
Agency approvals	CE, UL
Standards	EN55032 Class A, with recommended circuit
	IEC61000-4-2, Perf. Criteria A
	IEC61000-4-3, Perf. Criteria A
	IEC61000-4-4, Perf. Criteria A
	IEC61000-4-5, Perf. Criteria A (external 220µF/100V cap required)
	IEC61000-4-6, Perf. Criteria A
	IEC61000-4-8, Perf. Criteria A
	IEC/EN/UL 60950-1:2001 & IEC/EN/UL 62368-1

Pin Out Specifications

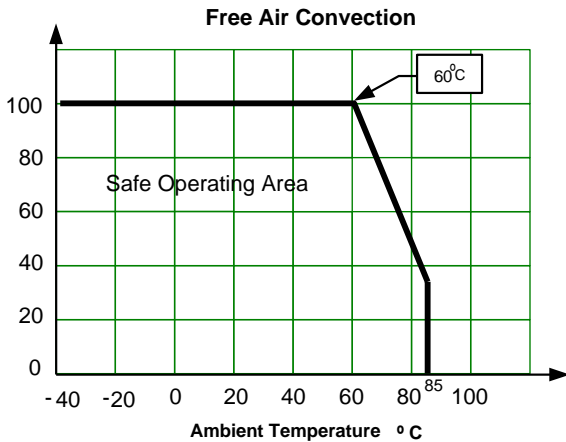
Pin	Single	Dual
2	-V Input	-V Input
3	-V Input	-V Input
9	No pin	Common
11	N.C.	-V Output
14	+V Output	+ V Output
16	-V Output	Common
22	+V Input	+V Input
23	+V Input	+V Input

Dimensions



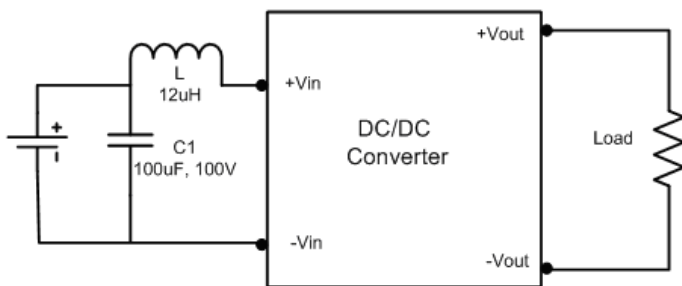
All dimensions are typical: millimeters (inches)
 Pin Diameter: 0.50 ± 0.05 (0.02 ± 0.002)
 Pin Pitch Tolerance: ± 0.35 (± 0.014)
 Case Tolerance: ± 0.5 (± 0.02)

Derating

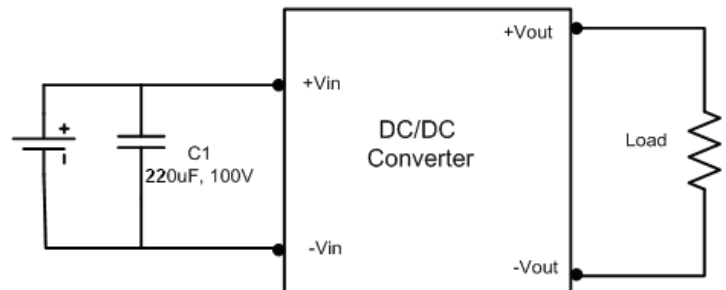


Test Circuits

Conducted Emissions:



Surge:



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