

Series AM8T-Z

8 Watt | DC-DC Converter



FEATURES:

- RoHS compliant
- 24 Pin DIP Package
- Wide 2:1 input range
- Efficiency up to 85%
- Operating temperature -40°C to + 85°C
- Continuous Short Circuit Protection
- Low ripple and noise
- Input/output Isolation voltage 1500VDC

Models Single output



Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Capacitive load (μF)	Efficiency (%)
AM8T-1203SZ	9-18	3.3	2000	3300	80
AM8T-1205SZ	9-18	5	1500	2200	82
AM8T-1212SZ	9-18	12	665	470	85
AM8T-1215SZ	9-18	15	535	220	83
AM8T-2403SZ	18-36	3.3	2000	3300	80
AM8T-2405SZ	18-36	5	1500	2200	82
AM8T-2412SZ	18-36	12	665	470	85
AM8T-2415SZ	18-36	15	535	220	84
AM8T-4803SZ	36-72	3.3	2000	3300	80
AM8T-4805SZ	36-72	5	1500	2200	82
AM8T-4812SZ	36-72	12	665	470	84
AM8T-4815SZ	36-72	15	535	220	84

Models Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Capacitive load (μF)	Efficiency (%)
AM8T-1205DZ	9-18	±5	±800	±1000	82
AM8T-1212DZ	9-18	±12	±335	±220	84
AM8T-1215DZ	9-18	±15	±265	±100	84
AM8T-2405DZ	18-36	±5	±800	±1000	82
AM8T-2412DZ	18-36	±12	±335	±220	83
AM8T-2415DZ	18-36	±15	±265	±100	85
AM8T-4805DZ	36-72	±5	±800	±1000	82
AM8T-4812DZ	36-72	±12	±335	±220	85
AM8T-4815DZ	36-72	±15	±265	±100	85

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	12	9-18		VDC
	24	18-36		
	48	36-72		
Filter	π (Pi) Network			
Turn on Transient process time			350	ms
Start up time		20		ms
Absolute Maximum Rating	12 Vin	-0.7-24		VDC
	24 Vin	-0.7-40		
	48 Vin	-0.7-100		
Peak Input Voltage time		100		ms

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	3 sec		1500	VDC
Case/input & Output		1000		VDC
Resistance		> 1000		MOhm
Capacitance		1000		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		140 % of I _{out} max		
Line voltage regulation	HL-LL	±0.5		%
Load voltage regulation	10% to 100% load	±0.5		%
Temperature coefficient		±0.02		%/°C
Rising time		10		ms
Ripple and Noise		75		mVp-p

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	330		KHz
Operating temperature	With Derating above 55°C	-40 to +85		°C
Storage temperature		-40 to +125		°C
Max Case temperature			+100	°C
Cooling		Free air convection		
Humidity			95	%
Case material		Nickel coated cooper		
Weight		17		g
Dimensions (L x H x W)	Tolerance ±0.5 mm or ±0.02 inches	1.25 x 0.80 x 0.40 inches	31.80 x 20.30 x 10.20 mm	
MTBF		>1 121 000 hrs (MIL-HDBK -217F, Ground Benign, t _a =+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.

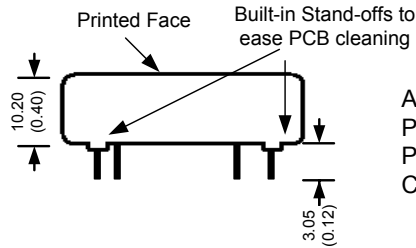
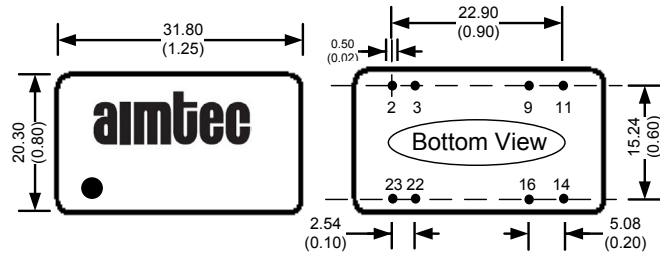
Safety Specifications

Parameters	
Agency Approval	CE
Standards	IEC 60950-1:2005 (2 nd Edition); EN 60950-1:2006
	EN55022 Class A, EN55024
	IEC61000-4-2, Perf. Criteria B
	IEC61000-4-3, Perf. Criteria A
	IEC61000-4-4, Perf. Criteria B (external 220uF/100V cap required)
	IEC61000-4-5, Perf. Criteria B (external 220uF/100V cap required)
	IEC61000-4-6, Perf. Criteria A
IEC61000-4-8, Perf. Criteria A	

Pin Out Specifications

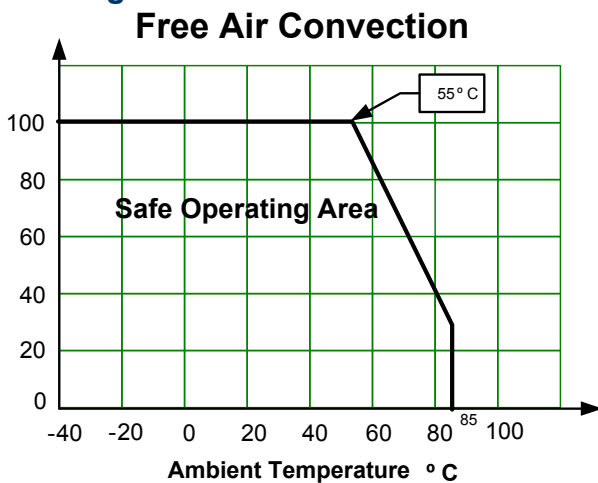
Pin	Single	Dual
2	-V Input	-V Input
3	-V Input	-V Input
9	No pin	Common
11	N.C.	-V Output
14	+V Output	+ V Output
16	-V Output	Common
22	+V Input	+V Input
23	+V Input	+V Input

Dimensions (Bottom view)



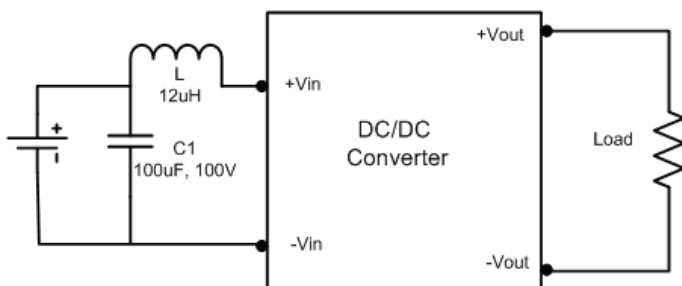
All dimensions are typical: millimeters (inches)
Pin Diameter: 0.50 ± 0.05 (0.02 ± 0.002)
Pin Pitch Tolerance: ± 0.35 (± 0.014)
Case Tolerance: ± 0.5 (± 0.02)

Derating

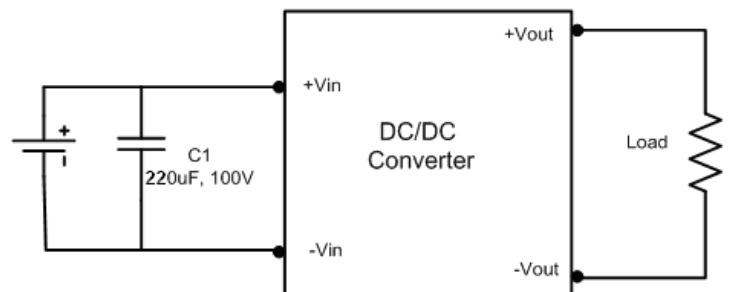


Test Circuits

Conducted Emissions:



Surge:



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