

## Series AM8T-Z

### 8 Watt | DC-DC Converter



#### FEATURES:

- Wide 2:1 input range
- 24 Pin DIP Package
- Over current protection
- Efficiency up to 86%
- 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)	Input current NL   FL (mA)	Output Voltage (V)	Output Current max (mA)	Capacitive load (µF)	Efficiency (%)
AM8T-1203SZ	9-18	20   687	3.3	2000	3300	80
AM8T-1205SZ	9-18	20   762	5	1500	2200	82
AM8T-1207SZ	9-18	20   803	7.2	1111	1000	83
AM8T-1209SZ	9-18	20   794	9	888	470	84
AM8T-1212SZ	9-18	20   784	12	665	470	85
AM8T-1215SZ	9-18	20   803	15	535	220	83
AM8T-2403SZ	18-36	15   344	3.3	2000	3300	80
AM8T-2405SZ	18-36	15   381	5	1500	2200	82
AM8T-2407SZ	18-36	15   396	7.2	1111	1000	84
AM8T-2409SZ	18-36	15   387	9	888	470	86
AM8T-2412SZ	18-36	15   392	12	665	470	85
AM8T-2415SZ	18-36	15   397	15	535	220	84
AM8T-4803SZ	36-72	15   172	3.3	2000	3300	80
AM8T-4805SZ	36-72	15   191	5	1500	2200	82
AM8T-4807SZ	36-72	15   198	7.2	1111	1000	84
AM8T-4809SZ	36-72	15   198	9	888	470	84
AM8T-4812SZ	36-72	15   198	12	665	470	84
AM8T-4815SZ	36-72	15   198	15	535	220	84

#### Models Dual output

Model	Input Voltage (V)	Input current NL   FL (mA)	Output Voltage (V)	Output Current max (mA)	Capacitive load (µF)	Efficiency (%)
AM8T-1205DZ	9-18	20   813	±5	±800	±1000	82
AM8T-1207DZ	9-18	20   803	±7.2	±555	±470	83
AM8T-1209DZ	9-18	20   794	±9	±444	±330	84
AM8T-1212DZ	9-18	20   794	±12	±335	±220	84
AM8T-1215DZ	9-18	20   794	±15	±265	±100	84
AM8T-2405DZ	18-36	15   407	±5	±800	±1000	82
AM8T-2407DZ	18-36	15   396	±7.2	±555	±470	84
AM8T-2409DZ	18-36	15   392	±9	±444	±330	85
AM8T-2412DZ	18-36	15   402	±12	±335	±220	83
AM8T-2415DZ	18-36	15   392	±15	±265	±100	85
AM8T-4805DZ	36-72	15   203	±5	±800	±1000	82
AM8T-4807DZ	36-72	15   198	±7.2	±555	±470	84
AM8T-4809DZ	36-72	15   198	±9	±444	±330	84
AM8T-4812DZ	36-72	15   196	±12	±335	±220	85
AM8T-4815DZ	36-72	15   196	±15	±265	±100	85

### Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	12	9-18		VDC
	24	18-36		
	48	36-72		
Filter	$\pi$ (Pi) Network			
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 ripple current *		35		mA p-p

\* The input reflected ripple current should be measured with connected 12 $\mu$ H 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		$\pm 1$		%
Cross Regulation (Dual output models)	1 load: 25 to 100%, other: 100% load	$\pm 5$		%
Short Circuit protection	Continuous, hiccup			
Short Circuit restart	Auto recovery			
Over Current Protection	150 % of Iout max			
Line voltage regulation	HL-LL	$\pm 0.5$		%
Load voltage regulation	0% to 100% load	$\pm 0.5$	$\pm 1.5$	%
Temperature coefficient		$\pm 0.02$		%/°C
Ripple and Noise *		75		mVp-p

\* Measured with 1 $\mu$ F CC.

### General Specifications

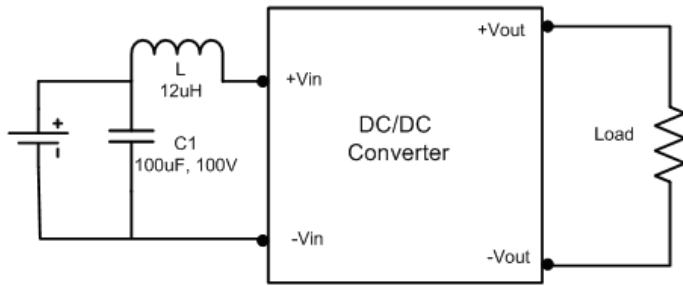
Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	330		KHz
Operating temperature	With Derating above 60°C	-40 to +85		°C
Storage temperature		-40 to +125		°C
Max Case temperature			+100	°C
Cooling	Free air convection			
Humidity			95	%
Case material	Nickel coated cooper			
Weight		17		g
Dimensions (L x H x W)	Tolerance $\pm 0.5$ mm or $\pm 0.02$ inches	1.25 x 0.80 x 0.40 inches	31.80 x 20.30 x 10.20 mm	
MTBF	>910 000 hrs (MIL-HDBK -217F, Ground Benign, t= $+25^{\circ}$ 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.

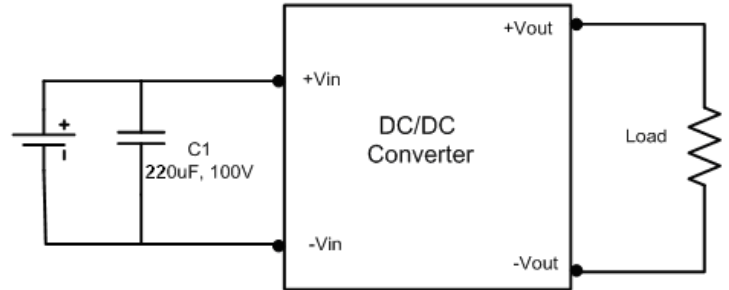


**Test Circuits**

**Conducted Emissions:**



**Surge:**



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