

Series AM1PS-JZ

1 Watt | DC-DC Converter

FEATURES:

- Unregulated
- 8 Pin DIP Package
- Low ripple and noise
- High efficiency up to 82%
- Operating temperature -40°C to + 105°C
- Input / Output isolation 3000 VDC
- Pin compatible with multiple manufacturers
- Continuous Short Circuit Protection

Picture Coming Soon



Models

Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Max. Capacitive Load (μF)	Efficiency typ. (%)
AM1PS-0505SH30JZ	4.5-5.5	5	200	3000	2400	82
AM1PS-0509SH30JZ	4.5-5.5	9	111	3000	1000	83
AM1PS-0512SH30JZ	4.5-5.5	12	84	3000	560	83
AM1PS-0515SH30JZ	4.5-5.5	15	67	3000	560	83

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	5	4.5-5.5		VDC
Input current (Full load/No load)	5VDC 9VDC, 12VDC 15VDC	244/5 241/12 241/18	257/10 254/20 254/30	mA
Surge Voltage(1sec. max)	5V input	-0.7~9		VDC
Filter		Capacitor		
Reflected ripple current		15		mA

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec, <1mA		3000	VDC
Resistance		> 1000		MOhm
Capacitance		20		pF

Output Specifications

Parameters	Conditions		Typical	Maximum	Units
Voltage accuracy	See tolerance graph		±5		%
Short Circuit protection			Continuous, auto recovery		
Line voltage regulation	Input voltage change: ±1%			1.2	% of Vin
Load voltage regulation	Load 10 – 100%	5VDC output	10	15	%
		9VDC output	8	10	
		12VDC output	7	10	
		15VDC output	6	10	
Temperature coefficient			±0.02		%/°C
Ripple & Noise	At 20 MHz Bandwidth		30	75	m Vp-p

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	270		KHz
Operating temperature	With derating (see graph below)	-40 to +105		°C
Storage temperature		-55 to +125		°C
Maximum case temperature			125	°C
Cooling	Free air convection			
Humidity	Non condensing		95	%
Case material	Plastic UL94-VO			
Lead Soldering Temperature	1.5mm from Lead, 10 sec max.		300	°C
Weight		1.8		g

Dimensions (L x W x H)	0.50 x 0.40 x 0.32 inches 12.70 x 10.16 x 8.20 mm
MTBF	>3500K hrs(MIL-HDBK -217F, Ground Benign, t=+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.

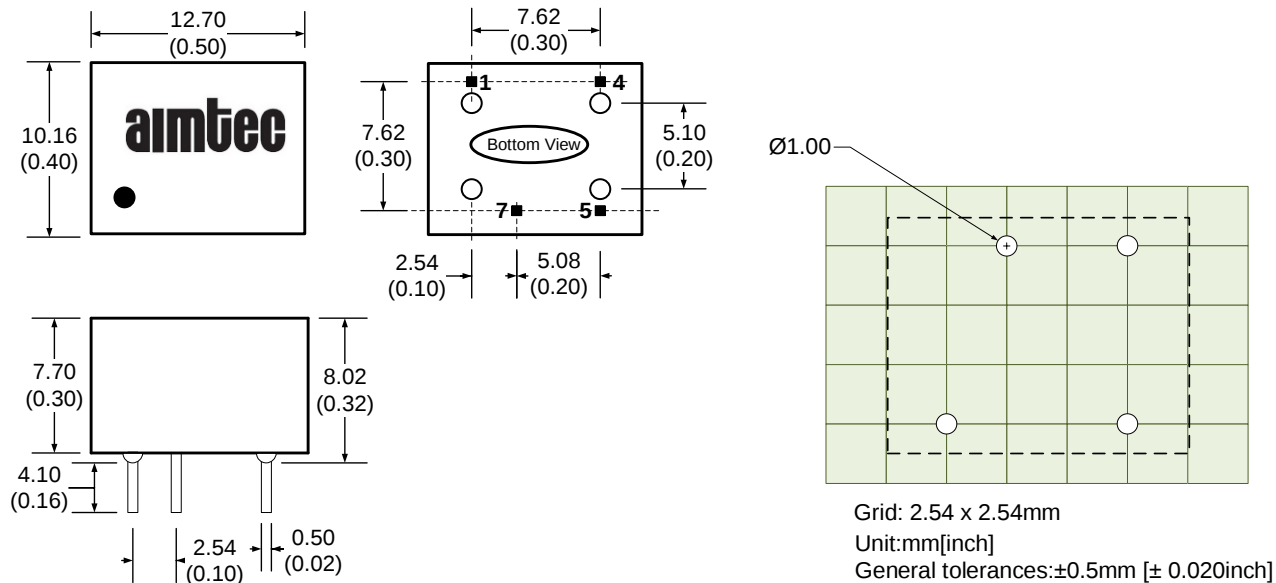
Safety Specifications

Parameters		
Standards	EMI - Conducted and radiated emission	CISPR32 / EN55032, class B (with the recommended EMC circuit)
	Electrostatic Discharge Immunity	IEC 61000-4-2, Air ±8KV, Contact ±4KV, Criteria B

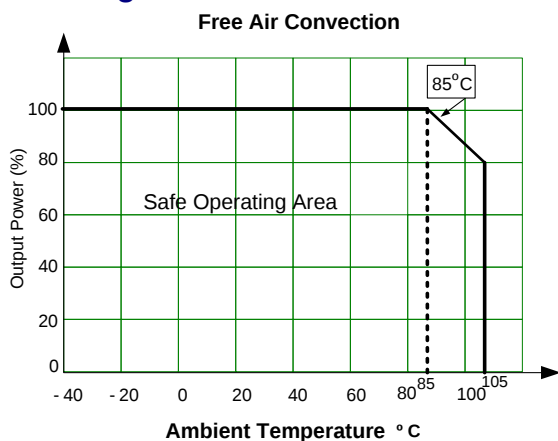
Pin Out Specifications

Pin	Single
1	- V Input
4	+V Input
5	+V Output
6	No pin
7	-V Output
8	No pin

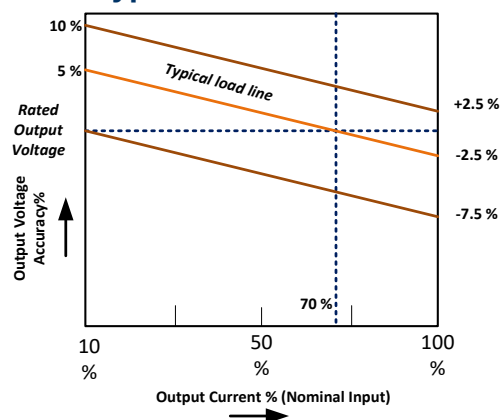
Dimensions & PCB Foot Print



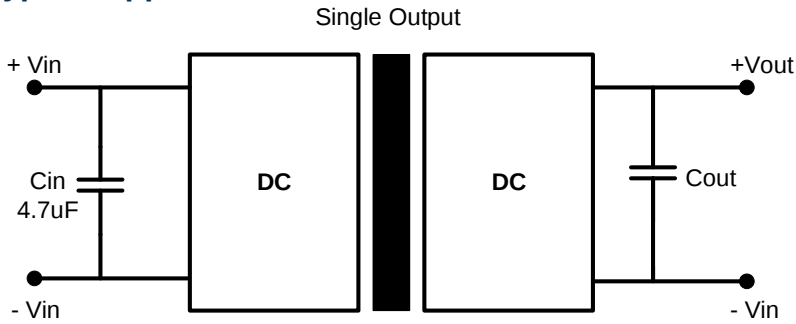
Derating



Typical Characteristics

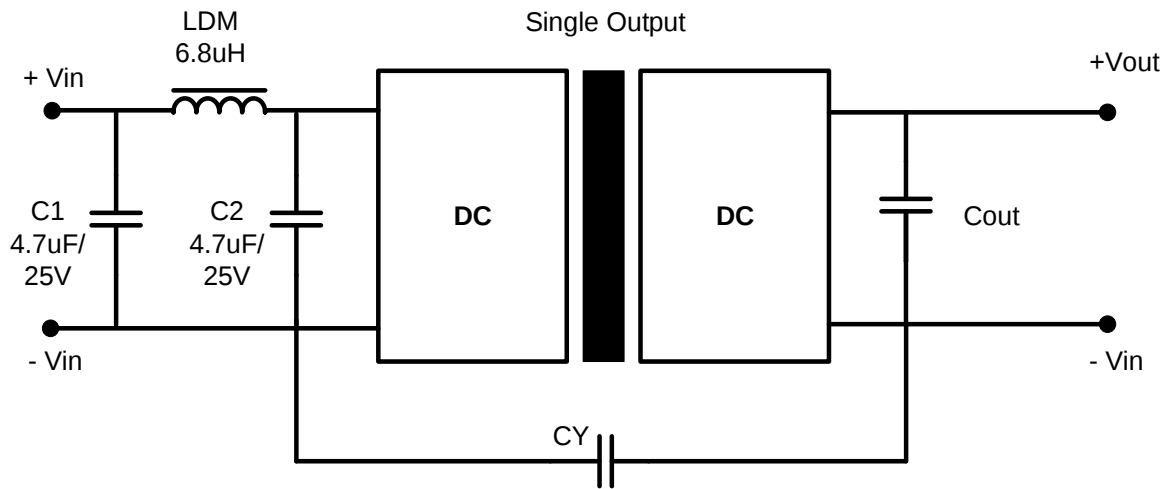


Typical Application Circuit



Model	Cout	CY
5V output	10uF	-
9V output	2.2uF	-
12V output	2.2uF	1nF/4KVDC
15V output	1uF	1nF/4KVDC

Recommended Circuit for EMI Class B



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