aimtec
Your Power Partner

Not recommended for new design
Use AM1P-Z series

Series AM1P-NZ
1 Watt | DC-DC Converter

FEATURES:

- RoHS compliant
- 8 Pin DIP Package
- Low ripple and noise
- High efficiency up to 81%
- Operating temperature -40°C to + 85°C
- Input / Output isolation 1000 VDC
- Pin computable with multiple manufacturers
- UL94-VO Package

RoHS

Models
Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Efficiency (%)
AM1P-0505S-NZ	4.5-5.5	5	200	1000	78
AM1P-0509S-NZ	4.5-5.5	9	110	1000	79
AM1P-0512S-NZ	4.5-5.5	12	83	1000	80
AM1P-0515S-NZ	4.5-5.5	15	67	1000	78
AM1P-1205S-NZ	10.8-13.2	5	200	1000	78
AM1P-1209S-NZ	10.8-13.2	9	110	1000	80
AM1P-1212S-NZ	10.8-13.2	12	83	1000	81
AM1P-1215S-NZ	10.8-13.2	15	67	1000	79
AM1P-2405S-NZ	21.6-26.4	5	200	1000	79
AM1P-2409S-NZ	21.6-26.4	9	110	1000	80
AM1P-2412S-NZ	21.6-26.4	12	83	1000	81
AM1P-2415S-NZ	21.6-26.4	15	67	1000	79

Models
Dual separated output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max(mA)	Isolation (VDC)	Efficiency (%)
AM1P-050505D-NZ	4.5-5.5	5 / 5	100 / 100	1000	72

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	5	4.5-5.5		VDC
	12	10.8-13.2		
	24	21.6-26.4		
Filter	Capacitor			

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec		1000	VDC
Resistance		> 1000		MOhm
Capacitance		60		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	See tolerance graph			
Short Circuit protection	Momentary (1 sec)			
Line voltage regulation (Single)	For 1.0% Vin	±1.2		% of Vin
Line voltage regulation (Dual)	For 1.0% Vin	±1.2		% of Vin
Load voltage regulation (Single)	Load 10 – 100%	10		%
Load voltage regulation (Dual)	Load 10 – 100%	10		%
Temperature coefficient		±0.03		%/°C
Ripple & Noise	At 20 MHz Bandwidth	75		m Vp-p

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	150		KHz
Operating temperature	Without derating	-40 to +85		°C
Storage temperature		-55 to +125		°C
Case temperature			90	°C
Cooling	Free air convection			
Humidity			90	%
Case material	Plastic UL94-VO			
Weight		1.8		g
Dimensions (L x W x H)		0.46 x 0.39x 0.30 inches	11.70 x 9.80 x 7.70 mm	
MTBF	>1 000 000 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	
Agency approvals	UL, CE for single output models
Standards	IEC60950-1 :2001

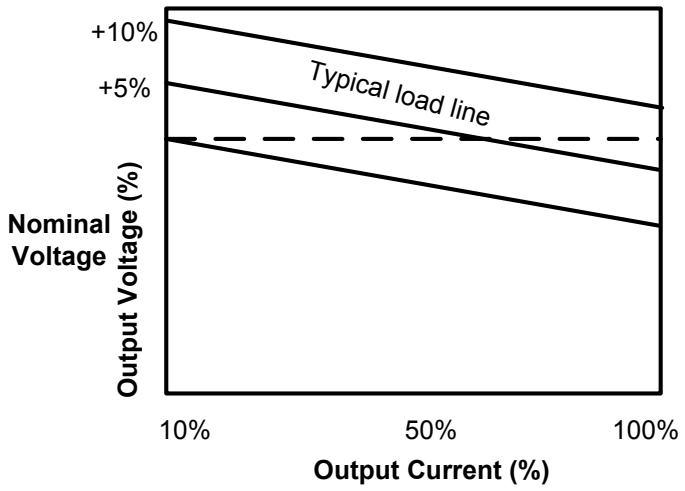
Pin Out Specifications

Pin	Single	Dual Separated
1	- V Input	-V Input
4	+V Input	+V Input
5	+V Output	+V1 Output
6	No pin	-V1 Output
7	-V Output	+V2 Output
8	No pin	-V2 Output

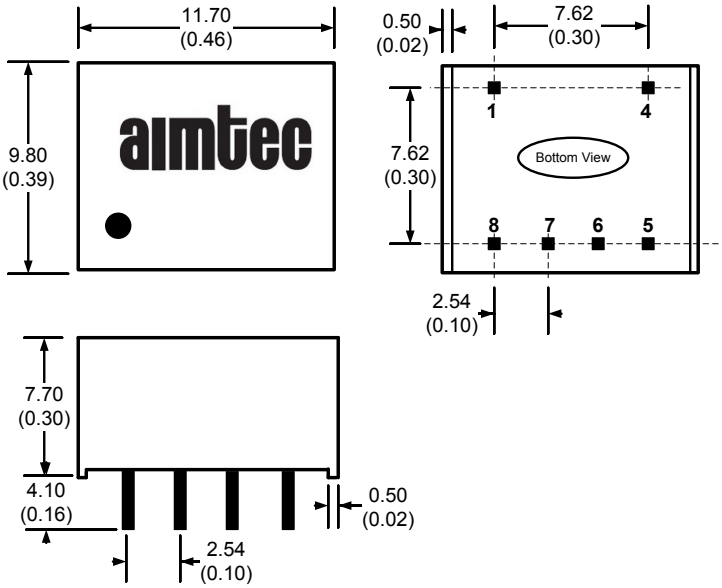
External capacitor

Vin (VDC)	External capacitor (uF)	Vout (VDC)	External capacitor (uF)
5	4.7	5	10
12	2.2	9	4.7
24	1	12	2.2
-	-	15	1

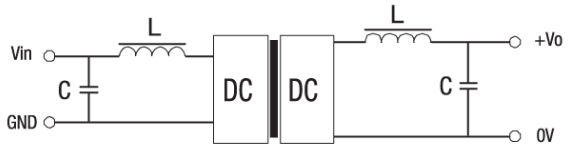
Tolerance Envelope Graph



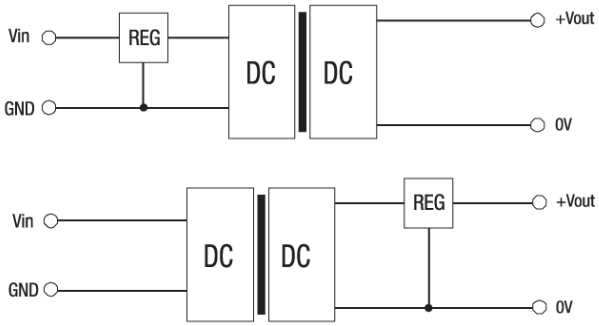
Dimensions



Filtering



<Figure 1>



<Figure 2>

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