

# Series AM1LE-NZ 1 Watt | DC-DC Converter



#### **FEATURES**:

- Efficiency 75%
- SMD Package
- Low Ripple & Noise
- Operating Temperature -50 °C to +125 °C
- Input / Output Isolation of 3500 VDC
- Pin Compatible with multiple manufacturers
- Continuous Short Circuit Protection



## Models Single output

Model		Output Voltage (V)	Output Current Max / Min (mA)	Isolation (VDC)	Max Capacitiv e Load	Input C Max Load		Efficiency (%)
AM1LE-0505SH35-NZ	4.5-5.5	5.0	200 / 20	3500	220	267	20	75

**Input Specifications** 

Parameters	Nominal	Typical	Maximum	Units
Voltage range	5	4.5-5.5		VDC
Filter		Capacitor		
Reflected Ripple Current		15		mA
Absolute Maximum Rating	5V input models		-0.7 to 9	VDC
No Load Input Current			20	mA

**Isolation Specifications** 

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec, <1mA		3500	VDC
Resistance	500VDC	>1000		MOhm
Capacitance		20		pF

**Output Specifications** 

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	Nominal load (See tolerance graph)	±2.5		%
Short Circuit protection		continuous		
Line voltage regulation	Per 1% of Vin Change		1.2	%
Load voltage regulation (Single)	10% to 100% load	12		%
Temperature coefficient	Nominal Input		±0.03	%/°C
Ripple & Noise	20MHz Bandwidth	60		mV p-p

**General Specifications** 

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Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	100	300	KHz
Operating temperature	No derating up to +105 C (see derating graph) -50 to +125			°C
Storage temperature	-55 to +135			°C
Maximum case temperature			100	°C
Cooling	Free Air Convection			
Humidity	Non Condensing		95	% RH
Case material	Epoxy Resin (UL94-V0)			
Weight	1.5			g
Dimensions (L x W x H)	0.50 x 0.44 x 0.28 inches 12.70 x 11.20 x 7.25 mm			·
MTBF	3.5M hours			
Maximum soldering temperature	300 (1.5mm from case for 10 seconds)			°C

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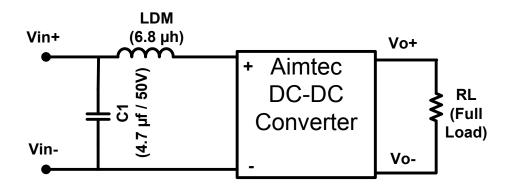
**Safety Specifications** 

Parameters	
Agency Approval	
Standards	EN55022 Class B (see recommended circuit)
	IEC61000-4-2, Perf. Criteria B (ESD Contact +/- 6KV)

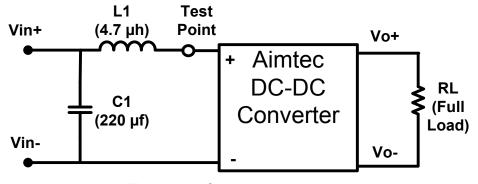
#### **Pin Out Specifications**

Pin	1000VDC		
	Single		
1	-V Input		
2	+V Input		
3	No Pin		
4	-V Output		
5	+V Output		
6	No Pin		
7	No Pin		
8	N.C		

## **EMI Recommended Circuit (Class B)**

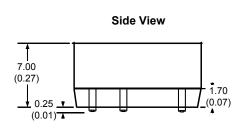


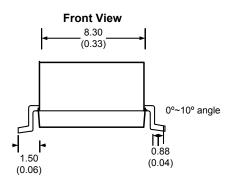
### **Input Reflected Ripple Current Test Circuit**

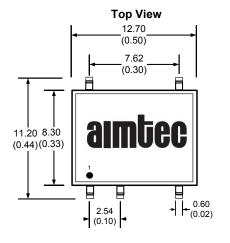




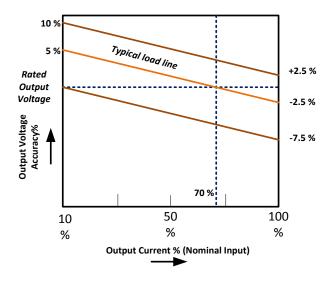
#### **Dimensions**



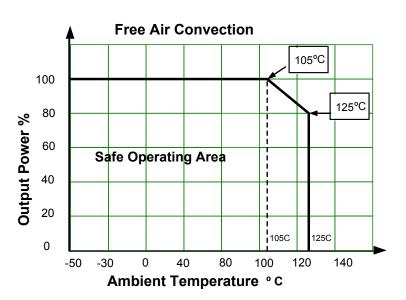




## **Load Accuracy Tolerance Graph**



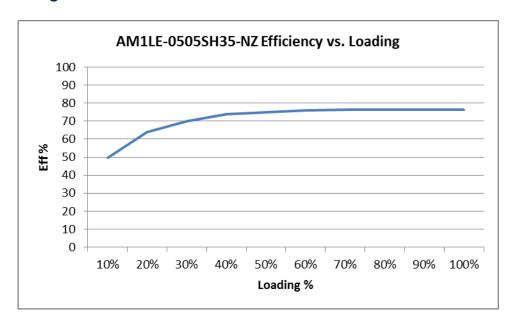
## **Derating**



North America only



#### Efficiency vs. Loading



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