

# Series AM1DR-NZ 1 Watt | DC-DC Converter



### FEATURES:

- RoHScompliant
- Regulated output voltage
- Low ripple and noise
- High efficiency up to 72%
- Operating temperature  $-40^{\circ}$ C to  $+85^{\circ}$ C
- Input / Output Isolation 1000& 3000VDC
- Pin computable with multiple manufacturers
- UL94-VO Package



Models	
Single output	

Single output						Rono
Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Input Current Max   No Load (mA)	Isolation (VDC)	Efficiency (%)
AM1DR-0505S-NZ	4.75-5.25	5	150	299   30	1000	69
AM1DR-0515S-NZ	4.75-5.25	15	67	274   30	1000	72
AM1DR-1205S-NZ	11.4-12.6	5	150	124   15	1000	69
AM1DR-2405S-NZ	22.8-25.2	5	150	61   8	1000	70
AM1DR-0505SH30-NZ	4.75-5.25	5	150	303   30	3000	68

## **Input Specifications**

Parameters	Nominal	Typical	Maximum	Units
	5	4.75-5.25		VDC
Voltage range	12	11.4-12.6		
	24	22.8-25.2		
Filter	Capacitor			

### **Isolation Specifications**

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec		1000 & 3000	VDC
Resistance		>1000		MOhm
Capacitance		60		pF

#### **Output Specifications**

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±3		%
Short Circuit protection		Moment	ary (1sec)	
Line voltage regulation (Single)	Input voltage: ±5%	±0.25		%
Load voltage regulation (Single)	10-100%	±1		%
Temperature coefficient		±0.03		%/°C
Ripple & Noise		50		mVp-p

### **General Specifications**

Parameters	Conditions	Typical	Maximum	Units	
Switching frequency	100% load	100		KHz	
Operating temperature	Derating above 71°C	-40	0 to +85	°C	
Storage temperature		-55 to +125		°C	
Cooling		Free air convection			
Humidity			95	%	
Case material		Plastic UL94-VO			
Weight		2.7		g	
Dimensions (L x W x H)		0.77 x 0.24 x 0.37 inch 19.60 x 6.00 x 9.50 mm			
MTBF	>900	>900 000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C)			

NOTE: All specifications are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified.



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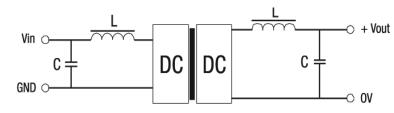
## **Pin Out Specification**

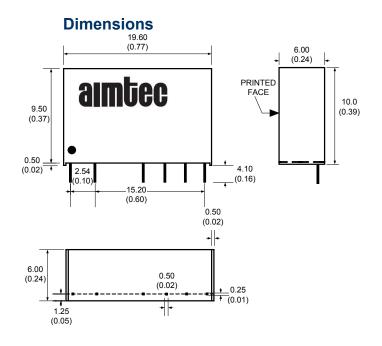
Pin	Single 1000 & 3000VDC
1	+ V Input
2	- V Input
4	- V Output
5	No pin
6	+ V Output
7	No pin

### **External capacitor**

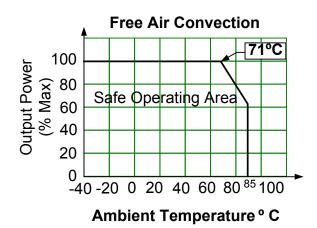
Vin (VDC)	External capacitor (uF)	Vout (VDC)	External capacitor (uF)
5	4.7	5	10
12	2.2	9	4.7
24	1	12	2.2
-	_	15	1

## Filtering





## Derating



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