



FEATURES:

- RoHS compliant
- Regulated output voltage
- Low ripple and noise
- High efficiency up to 74%
- Operating temperature -40°C to + 85°C
- Input / Output Isolation 1000,1500 & 3000VDC
- Pin computable with multiple manufacturers
- UL94-VO Package



Models Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Input Current Max No Load (mA)	Isolation (VDC)	Efficiency (%)
AM1DR-0503S-NZ	4.75-5.25	3.3	303	333 30	1000	60
AM1DR-0505S-NZ	4.75-5.25	5	200	299 30	1000	67
AM1DR-0509S-NZ	4.75-5.25	9	111	286 30	1000	70
AM1DR-0512S-NZ	4.75-5.25	12	83	282 30	1000	71
AM1DR-0515S-NZ	4.75-5.25	15	67	274 30	1000	72
AM1DR-0505SJZ	4.75-5.25	5	200	299 30	1500	67
AM1DR-0524S-NZ	4.75-5.25	24	42	294 30	1000	68
AM1DR-1205S-NZ	11.4-12.6	5	200	124 15	1000	67
AM1DR-1209S-NZ	11.4-12.6	9	111	116 15	1000	72
AM1DR-1212S-NZ	11.4-12.6	12	83	119 15	1000	70
AM1DR-1215S-NZ	11.4-12.6	15	67	113 15	1000	74
AM1DR-1224S-NZ	11.4-12.6	24	42	123 15	1000	68
AM1DR-1505S-NZ	14.25-15.75	5	200	100 15	1000	67
AM1DR-1515S-NZ	14.25-15.75	15	67	93 15	1000	72
AM1DR-2405S-NZ	22.8-25.2	5	200	61 8	1000	68
AM1DR-2409S-NZ	22.8-25.2	9	111	61 8	1000	68
AM1DR-2412S-NZ	22.8-25.2	12	83	57 8	1000	73
AM1DR-2415S-NZ	22.8-25.2	15	67	56 8	1000	75
AM1DR-2424S-NZ	22.8-25.2	24	42	61 8	1000	68
AM1DR-0505SH30-NZ	4.75-5.25	5	200	303 30	3000	66
AM1DR-0512SH30-NZ	4.75-5.25	12	83	278 30	3000	72
AM1DR-0524SH30-NZ	4.75-5.25	24	41	274 30	3000	73
AM1DR-1205SH30-NZ	11.4-12.6	5	200	124 15	3000	67
AM1DR-1212SH30-NZ	11.4-12.6	12	83	114 15	3000	73
AM1DR-1215SH30-NZ	11.4-12.6	15	67	113 15	3000	74
AM1DR-2405SH30-NZ	22.8-25.2	5	200	62 8	3000	67
AM1DR-2412SH30-NZ	22.8-25.2	12	83	57 8	3000	73
AM1DR-2415SH30-NZ	22.8-25.2	15	67	56 8	3000	74

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	5 12 15 24	4.75-5.25 11.4-12.6 14.25-15.75 22.8-25.2		VDC
Filter	Capacitor			
Input no load current for AM1DR-0505SJZ		5	10	mA

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec, <1mA		1000,1500 & 3000	VDC
Resistance		>1000		MOhm

Capacitance	100KHz/0.1V	60	pF
Capacitance (for 1500 Vdc models)	100KHz/0.1V	20	pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±3		%
Short Circuit protection	9, 12, 15 Vout, and AM1DR-0505SJZ	Continuous		
	5, 24 Vout	Momentary (1sec)		
Line voltage regulation	Input voltage: ±5%	±0.25		%
Load voltage regulation	10-100%	±1	±2	%
Temperature coefficient		±0.03		%/°C
Ripple & Noise		50	75	mVp-p

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	120	300	KHz
	100% load, AM1DR-0505SJZ model	270		KHz
Operating temperature	Derating above 71°C	-40 to +85		°C
Storage temperature		-55 to +125		°C
Cooling	Free air convection			
Humidity			95	%
Case material	Plastic UL94-VO			
Weight		2.1		g
Dimensions (L x W x H)	0.77 x 0.24 x 0.38 inch 19.60 x 6.00 x 9.66 mm			
MTBF	>3,500,000 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.

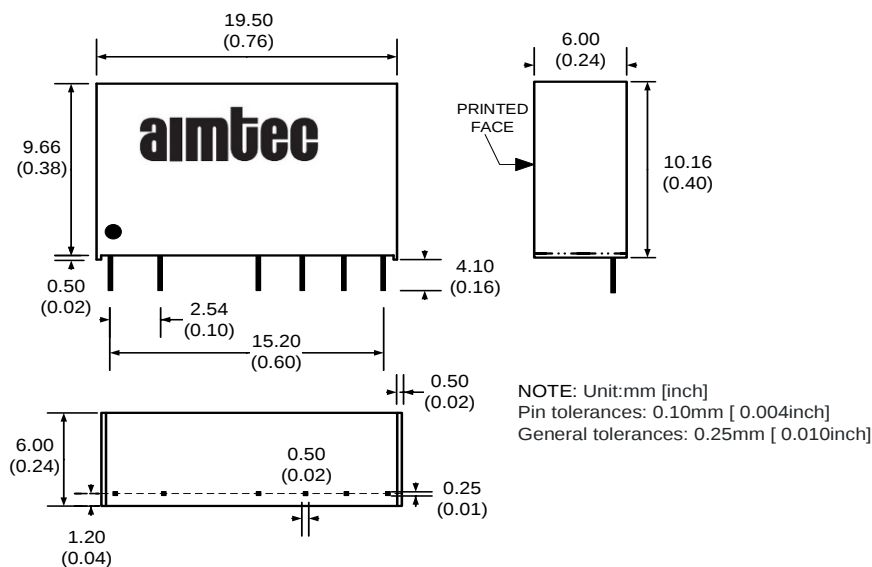
Safety Specifications

Parameters		
Agency approvals	cULus	
Standards	UL62368 (AM1DR-0505SJZ only)	
	EMI - Conducted and radiated emission	CISPR32/EN55032, class B (with the recommended EMC circuit)
	Electrostatic Discharge Immunity	IEC 61000-4-2, Contact ±4kV, Air ±8kV, Criteria B

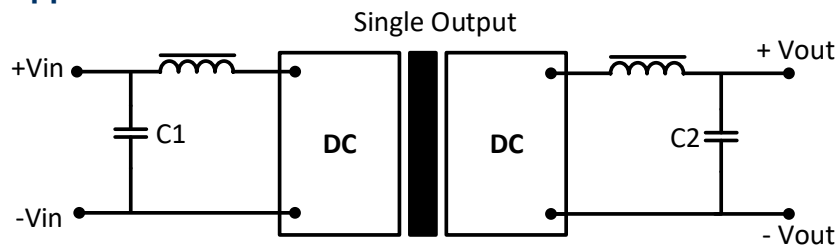
Pin Out Specification

Pin	Single 1000, 1500 & 3000VDC
1	+ V Input
2	- V Input
4	- V Output
5	No pin
6	+ V Output
7	No pin

Dimensions



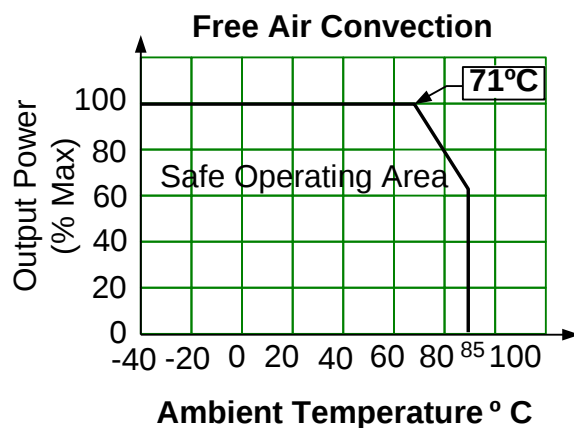
Ripple noise reduction circuit



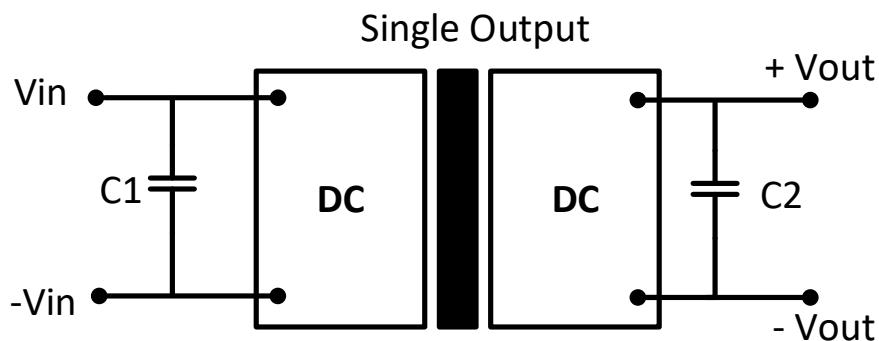
External capacitor

Vin (VDC)	C1 (uF)	Vout (VDC)	C2 (uF)
5	4.7	3.3/5	10
12/15	2.2	9	4.7
24	1	12	2.2
-	-	15	1
		24	0.47

Derating



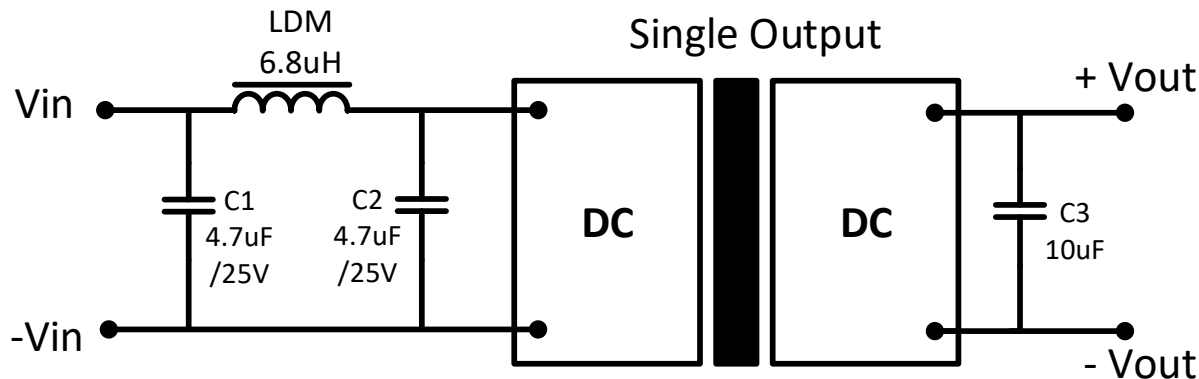
Application circuit for AM1DR-0505SJZ:



External capacitor

Vin (VDC)	C1 (uF)	Vout (VDC)	C2 (uF)
5	4.7	5	10
-	-	9/12	2.2
-	-	15	1

EMC recommended circuit for AM1DR-0505SJZ:



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