aimtec
Your Power Partner

FEATURES:

- Regulated Single Output
- Continuous Short Circuit Protection
- RoHS Compliant
- MTBF>1,500,000 hours

- 1000VDC Isolation
- Operating temperature: -40°C to +85°C
- Industry Standard Pinout
- SIP7 Package

Models
Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Efficiency (%)
AM1DR-0503S-RZ	4.5-5.5	3.3	303	1000	55
AM1DR-0505S-RZ	4.5-5.5	5	200	1000	64
AM1DR-0507S-RZ	4.5-5.5	7.2	139	1000	64
AM1DR-0509S-RZ	4.5-5.5	9	111	1000	65
AM1DR-0512S-RZ	4.5-5.5	12	83	1000	66
AM1DR-0515S-RZ	4.5-5.5	15	67	1000	66
AM1DR-1203S-RZ	10.8-13.2	3.3	303	1000	56
AM1DR-1205S-RZ	10.8-13.2	5	200	1000	64
AM1DR-1207S-RZ	10.8-13.2	7.2	139	1000	65
AM1DR-1209S-RZ	10.8-13.2	9	111	1000	66
AM1DR-1212S-RZ	10.8-13.2	12	83	1000	66
AM1DR-1215S-RZ	10.8-13.2	15	67	1000	68
AM1DR-2403S-RZ	21.6-26.4	3.3	303	1000	56
AM1DR-2405S-RZ	21.6-26.4	5	200	1000	63
AM1DR-2407S-RZ	21.6-26.4	7.2	139	1000	65
AM1DR-2409S-RZ	21.6-26.4	9	111	1000	66
AM1DR-2412S-RZ	21.6-26.4	12	83	1000	67
AM1DR-2415S-RZ	21.6-26.4	15	67	1000	67

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.

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	5 12 24	4.5- 5.5 10.8-13.2 21.6- 26.4		VDC
Filter	Capacitor			
Absolute Maximum Rating (100 ms)	5 12 24		7 15 28	VDC
No load input current			45	mA
Input reflected ripple current		20		mA p-p

Isolation Specifications

Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage	3 sec	1000		VDC
Resistance	At 500VDC	>1000		MOhm
Capacitance		60		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±2		%
Short Circuit protection	Continuous			
Short circuit restart	Auto-Recovery			
Line voltage regulation	LL ~ HL	±0.5		% of Vin
Load voltage regulation	From 0% to 100% Load	±0.5		%
Load voltage regulation (3.3V output)	From 0% to 100% Load	±1		%
Temperature coefficient		±0.02		%/^{o}C
Ripple & Noise	20MHz Bandwidth	50		mV p-p

General Specifications

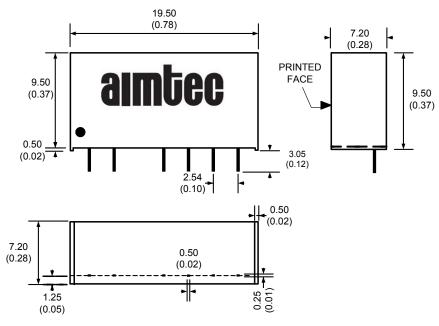| Parameters	Conditions	Typical	Maximum	Units
Switching frequency		50 (variable)		KHz
Operating temperature	Full load	-40 to +85		^{o}C
Storage temperature	-40 to +125			^{o}C
Maximum case temperature			100	^{o}C
Cooling	Free Air Convection			
Humidity			95	% RH
Case material	Non-Conductive Plastic (UL94V-0)			
Weight	2.7			g
Dimensions (L x W x H)	19.50 x 7.20 x 9.50 mm (0.77 x 0.28 x 0.37 inches)			
MTBF	>1,500,000 hrs dual (MIL-HDBK -217F, Ground Benign, t=+25°C)			
Maximum soldering temperature	1.5mm from case for 10 sec		260	^{o}C

Safety Specifications

Parameters	
Safety Standards	Designed to meet IEC 60950-1

Pin Out Specifications

Pin	Single
1	+ V input
2	- V input
4	- V output
5	No Pin
6	+ V output
7	No Pin

Dimensions

NOTE: 1. Datasheets are updated as needed and as such, specifications are subject to change without notice. Once printed or downloaded, datasheets are no longer controlled by Aimtec; refer to www.aimtec.com for the most current product specifications. **2.** Product labels shown, including safety agency certifications on labels, may vary based on the date manufactured. **3.** Mechanical drawings and specifications are for reference only. **4.** All specifications are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified.**5.**.Aimtec may not have conducted destructive testing or chemical analysis on all internal components and chemicals at the time of publishing this document. CAS numbers and other limited information are considered proprietary and may not be available for release. **5.** This product is not designed for use in critical life support systems, equipment used in hazardous environments, nuclear control systems or other such applications which necessitate specific safety and regulatory standards other the ones listed in this datasheet.