

1 watt dc-dc converters

- 7PIN SIP PACKAGE
- REGULATED OUTPUT VOLTAGE
- LOW RIPPLE & NOISE
- HIGH EFFICIENCY UP TO 70%
- INPUT/OUTPUT ISOLATION: 1000 & 3000VDC
- OPERATING TEMPERATURE: -40°C ... +85°C
- PIN-COMPATIBLE WITH MULTIPLE MANUFACTURERS

GENERAL DESCRIPTION

Our AM1DR series is a family of cost effective 1W single output isolated DC-DC converters. These converters achieve low cost and ultra-miniature SIP7 pin size without compromising performance and reliability.

Thirty models operates from input voltages of 5, 12 & 24VDC; producing regulated output voltage levels of 3.3, 5, 9, 12, 15VDC. Full SMD-design and a 100% production test of parameters ensures a high reliability in this product.

ELECTRICAL SPECIFICATIONS

Specifications typical at +25°C, nominal input voltage, rated output current unless otherwise specified

Input Specifications:

Voltage range	±10%
Filter	Capacitor

Isolation Specifications:

Rated voltage (60 sec)	1000VDC 3000VDC
Resistance	> 1000MOhm
Capacitance	60pF, typ.

Output Specifications:

Voltage accuracy	±3%, max.
Ripple & noise (at 20MHz BW)	50 mVp-p, max.
Short circuit protection	Momentary
Line voltage regulation	±0.5%, max.
Load voltage regulation	±0.5%, max.
Temperature coefficient	±0.02%/°C, typ.

General Specifications:

Efficiency	58% to 70%
Switching frequency	125KHz, typ. 100% load

Environmental Specifications:

Operating temperature (ambient)	-40°C ... +85°C
Storage temperature	-55°C ... +125°C
Case Temperature	+95°C, max.
Derating	None required
Humidity (non-condensing)	Up to 90%
Cooling	Free-air Convection

Physical Specifications:

Dimensions	19.50x7.20x10.00mm 0.76x0.28x0.39inches
Weight	2.7g
Case material	Non-conductive black plastic

MTBF: > 880,000 hrs (MIL-HDBK-217F, Ground Benign, t=+25°C)

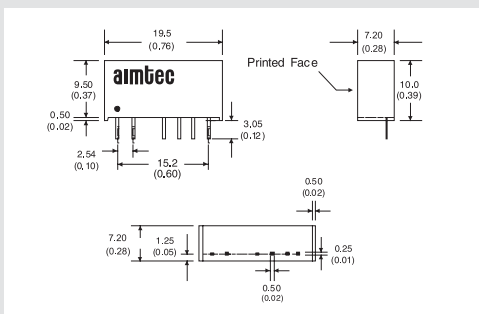
Specifications are subject to change without notification

AM1DR Series

MODELS

Models		Input Voltage	Output Voltage	Output Current max.
Isolation 1000VDC	Isolation 3000VDC			
AM1DR-0503S	AM1DR-0503SH30	5V±10%	3.3VDC	200mA
AM1DR-0505S	AM1DR-0505SH30		5VDC	200mA
AM1DR-0509S	AM1DR-0509SH30		9VDC	111mA
AM1DR-0512S	AM1DR-0512SH30		12VDC	84mA
AM1DR-0515S	AM1DR-0515SH30		15VDC	67mA
AM1DR-1203S	AM1DR-1203SH30	12V±10%	3.3VDC	200mA
AM1DR-1205S	AM1DR-1205SH30		5VDC	200mA
AM1DR-1209S	AM1DR-1209SH30		9VDC	111mA
AM1DR-1212S	AM1DR-1212SH30		12VDC	84mA
AM1DR-1215S	AM1DR-1215SH30		15VDC	67mA
AM1DR-2403S	AM1DR-2403SH30	24V±10%	3.3VDC	200mA
AM1DR-2405S	AM1DR-2405SH30		5VDC	200mA
AM1DR-2409S	AM1DR-2409SH30		9VDC	111mA
AM1DR-2412S	AM1DR-2412SH30		12VDC	84mA
AM1DR-2415S	AM1DR-2415SH30		15VDC	67mA

OUTLINE DIMENSIONS & PIN CONNECTIONS



Pin	1000VDC	3000VDC
1	+V Input	+V Input
2	-V Input	-V Input
4	-V Output	Omitted
5	Omitted	-V Output
6	+V Output	Omitted
7	Omitted	+V Output