AM2F Series



2 watt dc-dc converters

- REGULATED SINGLE OUTPUT
- 12 PIN SIP PACKAGE
- LOW RIPPLE & NOISE
- HIGH EFFICIENCY UP TO 68%
- INPUT/OUTPUT ISOLATION: 1000, 3000 & 5200VDC
- OPERATING TEMPERATURE: -25°C ... +71°C
- PIN-COMPATIBLE WITH MULTIPLE MANUFACTURERS

GENERAL DESCRIPTION

Our AM2F series is a family of cost effective 2W single output DC-DC converters. These converters combine miniature package in a 12-pin SIP compatible case with high performance features such as 1000VDC, 3000VDC & 5200VDC input/output isolation voltage, continuous short circuit protection with automatic restart and tight line / load regulation. Input voltages of 5, 12 & 24VDC with producing output voltage levels of 3.3, 5, 7.2, 9, 12, 15, 18, 24VDC. High

performance features include high efficiency operation up to 68% and output voltage accuracy of $\pm 2\%$ maximum. Standard features include an input range of $\pm 10\%$ tolerance and low output noise and ripple. All models are package in a low profile 31.80x8.60x13.47mm 12 pin SIP nonconductive black plastic case. Operation is specified over the full operating temperature range of -25°C to +71°C with no derating required. Cooling is by free-air convection.

ELECTRICAL SPECIFICATIONS

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

Input Specifications:	
Voltage range	±10%
Filter	p (Pi) Network

Isolation Specifications:

Rated voltage (60 sec) 1000, 3000 & 5200VDC
Resistance > 1000MOhm
Capacitance 60pF, typ.

Output Specifications:

Voltage accuracy $\pm 2\%$, max. Ripple & noise (at 20MHz BW) 75mVp-p, max. Short circuit protection Continuous Short circuit restart Automatic Line voltage regulation $\pm 0.5\%$, max. Load voltage regulation $\pm 0.5\%$, max. Temperature coefficient $\pm 0.02\%$ °C, typ.

General Specifications:

Efficiency 64% to 68% Switching frequency 125KHz, typ. 100% load

Environmental Specifications:

Operating temperature (ambient) -25°C ... +71°C Storage temperature -40°C ... +125°C Case temperature +90°C, max. Derating None required Humidity (non-condensing) Up to 90% Cooling Free-air Convection

Physical Specifications:

Dimensions

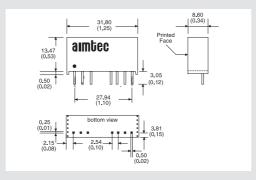
31.80x8.60x13.47mm
1.25x0.34x0.53inches

Weight
10.7g
Case material
Non-conductive black
plastic

MTBF: > 1,024,000 hrs (MIL-HDBK-217F, Ground Benign, t=+25°C)

Specifications are subject to change without notification

OUTLINE DIMENSIONS & PIN CONNECTIONS



Pin	1000, 3000 & 5200VDC
	Single
1	+V Input
2	N.C.
3	N.C.
9	N.C.
10	-V Output
11	+V Output
12	-V Input
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AM2F Series

MODELSSingle regulated output

Models			Input	Ouput	Ouput
Isolation 1000VDC	Isolation 3000VDC	Isolation 5200VDC	Voltage	Voltage	Current max.
AM2F-0503S	AM2F-0503SH30	AM2F-0503SH52	5V±10%	3.3VDC	600mA
AM2F-0505S	AM2F-0505SH30	AM2F-0505SH52		5VDC	400mA
AM2F-0507S	AM2F-0507SH30	AM2F-0507SH52		7.2VDC	278mA
AM2F-0509S	AM2F-0509SH30	AM2F-0509SH52		9VDC	222mA
AM2F-0512S	AM2F-0512SH30	AM2F-0512SH52		12VDC	167mA
AM2F-0515S	AM2F-0515SH30	AM2F-0515SH52		15VDC	134mA
AM2F-0518S	AM2F-0518SH30	AM2F-0518SH52		18VDC	111mA
AM2F-0524S	AM2F-0524SH30	AM2F-0524SH52		24VDC	83mA
AM2F-1203S	AM2F-1203SH30	AM2F-1203SH52	12V±10%	3.3VDC	600mA
AM2F-1205S	AM2F-1205SH30	AM2F-1205SH52		5VDC	400mA
AM2F-1207S	AM2F-1207SH30	AM2F-1207SH52		7.2VDC	278mA
AM2F-1209S	AM2F-1209SH30	AM2F-1209SH52		9VDC	222mA
AM2F-1212S	AM2F-1212SH30	AM2F-1212SH52		12VDC	167mA
AM2F-1215S	AM2F-1215SH30	AM2F-1215SH52		15VDC	134mA
AM2F-1218S	AM2F-1218SH30	AM2F-1218SH52		18VDC	111mA
AM2F-1224S	AM2F-1224SH30	AM2F-1224SH52		24VDC	83mA
AM2F-2403S	AM2F-2403SH30	AM2F-2403SH52	24V±10%	3.3VDC	600mA
AM2F-2405S	AM2F-2405SH30	AM2F-2405SH52		5VDC	400mA
AM2F-2407S	AM2F-2407SH30	AM2F-2407SH52		7.2VDC	278mA
AM2F-2409S	AM2F-2409SH30	AM2F-2409SH52		9VDC	222mA
AM2F-2412S	AM2F-2412SH30	AM2F-2412SH52		12VDC	167mA
AM2F-2415S	AM2F-2415SH30	AM2F-2415SH52		15VDC	134mA
AM2F-2418S	AM2F-2418SH30	AM2F-2418SH52		18VDC	111mA
AM2F-2424S	AM2F-2424SH30	AM2F-2424SH52		24VDC	83mA