AM10E Series

Picture Available Soon

10 watt dc-dc converters

- FULL SMD TECHNOLOGY
- WIDE 2:1 INPUT RANGE
- HIGH EFFICIENCY UP TO 90%
- LOW PROFILE METAL PACKAGE
- INPUT/OUTPUT ISOLATION: 1500VDC
- OPERATING TEMPERATURE: -40°C ... +85°C
- CONTINUOUS SHORT CIRCUIT PROTECTION
- PIN-COMPATIBLE WITH MULTIPLE MANUFACTURERS

GENERAL DESCRIPTION

Our AM10E series is a family of cost effective 10W single and dual output DC/DC converters. These converters combine nickel-coated copper package with high performance features such as 1500VDC input/output isolation voltage, continuous short circuit protection with automatic restart and tight line / load regulation. Wide range devices operate over 2:1 input voltage range providing stable output voltage. Input voltages of 12, 24 and 48VDC with output voltages of 3.3, 5, 7.2, 9, 12, 15, 18, 24, ±3.3, ±5, ±7.2, ±9, ±12, ±15, ±18 or ±24VDC. High performance features include high efficiency operation up to 90% and output voltage accuracy of ±1% maximum. All models are packaged in a low profile 50.8 x 25.4 x 10.16mm nickel-coated copper case. Operation is specified over the full operating temperature range of -40°C to +85°C with no derating required. Cooling is by free-air convection.

ELECTRICAL SPECIFICATIONS

All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

Input Specifications:	
Voltage range	12VDC, 9~18VDC 24VDC, 18~36VDC 48VDC, 36~72VDC
Filter	Capacitor

Isolation Specifications:	
Rated voltage (60 sec)	1500VDC
Resistance	> 1000MOhm
Capacitance	500pF, typ.

Environmental Specifications:	
Operating temperature (ambient)	-40°C ... +85°C
Storage temperature	-40°C ... +125°C
Case Temperature	+100°C, max.
Derating	None required
Humidity (non-condensing)	Up to 90%
Cooling	Free-air Convection

General Specifications:	
Efficiency	83% to 90%
Switching frequency	200KHz, typ. 100% load

Output Specifications:	
Voltage accuracy	±1%, max.
Voltage balance (Dual Output)	±1%
Ripple and noise (at 20MHz BW)	±100mVp-p, max.
Short circuit protection	Continuous
Short circuit restart	Automatic
Line voltage regulation	±0.5%, max.
Load voltage regulation	±0.5%, max.
Temperature coefficient	±0.02%/°C, typ.
Over load protection	130%, typ. 100% load

Physical Specifications:	
Dimensions	50.8x25.4x10.16mm 2.00x1.00x0.40inches
Weight	46g
Case material	Nickel-Coated Copper

MTBF: > 800,000 hrs @ 25°C (MIL-HDBK-217F)

Specifications are subject to change without notification.

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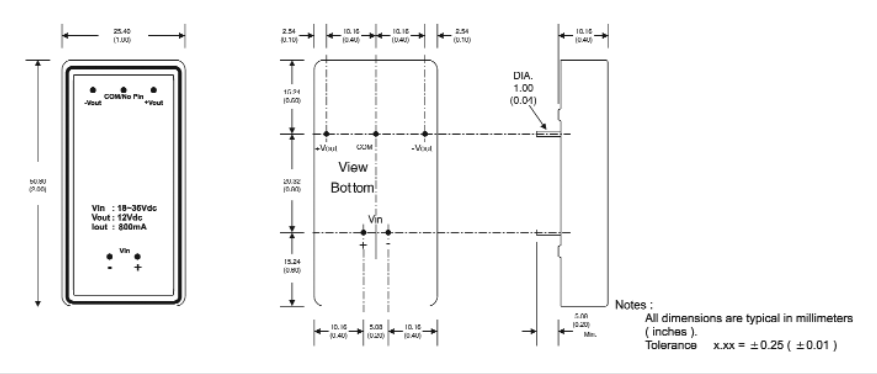
OUTLINE DIMENSIONS & PIN CONNECTIONS



Pin	Single	Dual
1	-V Input	-V Input
2	+V Input	+V Input
3	-V Output	-V Output
4	No Pin	Common
5	+V Output	+V Output

MODELS

Single output

Models	Input Voltage	Ouput Voltage	Ouput Current max.
AM10E-1203S	9 - 18VDC	3.3VDC	2500mA
AM10E-1205S		5VDC	2000mA
AM10E-1207S		7.2VDC	1380mA
AM10E-1209S		9VDC	1111mA
AM10E-1212S		12VDC	833mA
AM10E-1215S		15VDC	666mA
AM10E-1218S		18VDC	550mA
AM10E-1224S		24VDC	416mA
AM10E-2403S	18 - 36VDC	3.3VDC	2500mA
AM10E-2405S		5VDC	2000mA
AM10E-2407S		7.2VDC	1380mA
AM10E-2409S		9VDC	1111mA
AM10E-2412S		12VDC	833mA
AM10E-2415S		15VDC	666mA
AM10E-2418S		18VDC	550mA
AM10E-2424S		24VDC	416mA
AM10E-4803S	36 - 72VDC	3.3VDC	2500mA
AM10E-4805S		5VDC	2000mA
AM10E-4807S		7.2VDC	1380mA
AM10E-4809S		9VDC	1111mA
AM10E-4812S		12VDC	833mA
AM10E-4815S		15VDC	666mA
AM10E-4818S		18VDC	550mA
AM10E-4824S		24VDC	416mA

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MODELS
Dual output

Models	Input Voltage	Ouput Voltage	Ouput Current max.
AM10E-1203D	9 - 18VDC	±3.3VDC	±1250mA
AM10E-1205D		±5VDC	±1000mA
AM10E-1207D		±7.2VDC	±690mA
AM10E-1209D		±9VDC	±555mA
AM10E-1212D		±12VDC	±416mA
AM10E-1215D		±15VDC	±333mA
AM10E-1218D		±18VDC	±270mA
AM10E-1224D		±24VDC	±208mA
AM10E-2403D	18 - 36VDC	±3.3VDC	±1250mA
AM10E-2405D		±5VDC	±1000mA
AM10E-2407D		±7.2VDC	±690mA
AM10E-2409D		±9VDC	±555mA
AM10E-2412D		±12VDC	±416mA
AM10E-2415D		±15VDC	±333mA
AM10E-2418D		±18VDC	±270mA
AM10E-2424D		±24VDC	±208mA
AM10E-4803D	36 - 72VDC	±3.3VDC	±1250mA
AM10E-4805D		±5VDC	±1000mA
AM10E-4807D		±7.2VDC	±690mA
AM10E-4809D		±9VDC	±555mA
AM10E-4812D		±12VDC	±416mA
AM10E-4815D		±15VDC	±333mA
AM10E-4818D		±18VDC	±270mA
AM10E-4824D		±24VDC	±208mA