AM6T Series



6 watt dc-dc converters

- 24 PIN DIP PACKAGE
- WIDE 2:1 INPUT RANGE
- HIGH EFFICIENCY UP TO 79%
- LOW PROFILE METAL PACKAGE
- INPUT/OUTPUT ISOLATION: 1500 & 3500VDC
- CONTINUOUS SHORT CIRCUIT PROTECTION
- OPERATING TEMPERATURE: -40°C ... +85°C
- PIN-COMPATIBLE WITH MULTIPLE MANUFACTURERS

GENERAL DESCRIPTION

Our AM6T series is a family of cost effective 6W single and dual output DC-DC converters. Input voltages of 12, 24 & 48 VDC with output voltages of 3.3, 5, 7.2, 9, 12, 15, 18, 24, ±3.3, ±5, ±7.2, ±9, ±12, ±15, ±18 & ±24VDC. Full SMD-design and a 100% production test of parameters ensures a high reliability in this product.

ELECTRICAL SPECIFICATIONS

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

Input Specifications:	
Voltage	12VDC, 9-18VDC 24VDC, 18-36VDC 48VDC, 36-72VDC
Filter	p (Pi) Network

Isolation Specifications:	
Rated Voltage (60 sec)	1500 & 3500VDC
Resistance	>1000MOhm
Capacitance	120pF, typ.

Environmental Specifications:	
Operating temperature (ambient)	-40°C ...+85°C
Storage temperature	-55ºC ... +125ºC
Case temperature	+100ºC, max.
Derating	None required
Humidity (non-condensing)	Up to 90%
Cooling	Free-air Convection

General Specifications:	
Efficiency	74% to 79%
Switching Frequency	250KHz, typ. 100% load

Output Specifications:	
Voltage accuracy	±1%, max.
Voltage balance (dual outputs)	±1%
Ripple & Noise (at 20MHz BW)	60mVp-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%/ºC, typ.

Physical Specifications:	
Dimensions	31.75x20.32x10.16mm 1.25x0.80x0.40inches
Weight	19g
Case material	Nickel-Coated Copper

MTBF: > 1,002,000 hrs (MIL-HDBK-217F, Ground Benign, t=+25ºC)

Specifications are subject to change without notification

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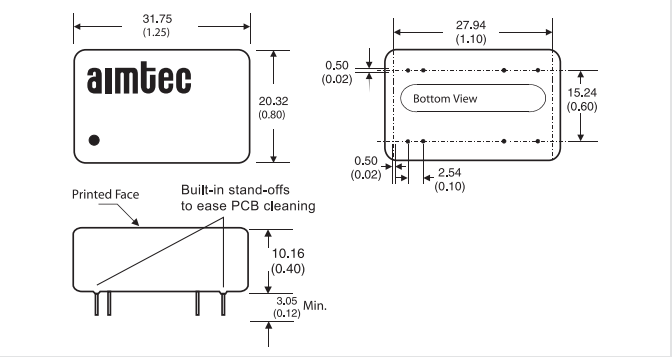
OUTLINE DIMENSIONS & PIN CONNECTIONS



Pin	1500 & 3500 VDC	
	Single	Dual
2	-V Input	-V Input
3	-V Input	-V Input
9	N.C.	Common
11	N.C.	-V Output
14	+V Output	+V Output
16	-V Output	Common
22	+V Input	+V Input
23	+V Input	+V Input

MODELS
Single output

Models		Input Voltage	Ouput Voltage	Ouput Current max.
Isolation 1500VDC	Isolation 3500VDC			
AM6T-1203S	AM6T-1203SH35	9VDC - 18VDC	3.3VDC	1500mA
AM6T-1205S	AM6T-1205SH35		5VDC	1200mA
AM6T-1207S	AM6T-1207SH35		7.2VDC	833mA
AM6T-1209S	AM6T-1209SH35		9VDC	667mA
AM6T-1212S	AM6T-1212SH35		12VDC	500mA
AM6T-1215S	AM6T-1215SH35		15VDC	400mA
AM6T-1218S	AM6T-1218SH35		18VDC	333mA
AM6T-1224S	AM6T-1224SH35		24VDC	250mA
AM6T-2403S	AM6T-2403SH35	18VDC - 36VDC	3.3VDC	1500mA
AM6T-2405S	AM6T-2405SH35		5VDC	1200mA
AM6T-2407S	AM6T-2407SH35		7.2VDC	833mA
AM6T-2409S	AM6T-2409SH35		9VDC	667mA
AM6T-2412S	AM6T-2412SH35		12VDC	500mA
AM6T-2415S	AM6T-2415SH35		15VDC	400mA
AM6T-2418S	AM6T-2418SH35		18VDC	333mA
AM6T-2424S	AM6T-2424SH35		24VDC	250mA
AM6T-4803S	AM6T-4803SH35	36VDC - 72VDC	3.3VDC	1500mA
AM6T-4805S	AM6T-4805SH35		5VDC	1200mA
AM6T-4807S	AM6T-4807SH35		7.2VDC	833mA
AM6T-4809S	AM6T-4809SH35		9VDC	667mA
AM6T-4812S	AM6T-4812SH35		12VDC	500mA
AM6T-4815S	AM6T-4815SH35		15VDC	400mA
AM6T-4818S	AM6T-4818SH35		18VDC	333mA
AM6T-4824S	AM6T-4824SH35		24VDC	250mA

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MODELS
Dual output

Models		Input Voltage	Ouput Voltage	Ouput Current max.
Isolation 1500VDC	Isolation 3500VDC			
AM6T-1203D	AM6T-1203DH35	9VDC - 18VDC	±3.3VDC	±750mA
AM6T-1205D	AM6T-1205DH35		±5VDC	±600mA
AM6T-1207D	AM6T-1207DH35		±7.2VDC	±417mA
AM6T-1209D	AM6T-1209DH35		±9VDC	±334mA
AM6T-1212D	AM6T-1212DH35		±12VDC	±250mA
AM6T-1215D	AM6T-1215DH35		±15VDC	±200mA
AM6T-1218D	AM6T-1218DH35		±18VDC	±167mA
AM6T-1224D	AM6T-1224DH35		±24VDC	±125mA
AM6T-2403D	AM6T-2403DH35	18VDC - 36VDC	±3.3VDC	±750mA
AM6T-2405D	AM6T-2405DH35		±5VDC	±600mA
AM6T-2407D	AM6T-2407DH35		±7.2VDC	±417mA
AM6T-2409D	AM6T-2409DH35		±9VDC	±334mA
AM6T-2412D	AM6T-2412DH35		±12VDC	±250mA
AM6T-2415D	AM6T-2415DH35		±15VDC	±200mA
AM6T-2418D	AM6T-2418DH35		±18VDC	±167mA
AM6T-2424D	AM6T-2424DH35		±24VDC	±125mA
AM6T-4803D	AM6T-4803DH35	36VDC - 72VDC	±3.3VDC	±750mA
AM6T-4805D	AM6T-4805DH35		±5VDC	±600mA
AM6T-4807D	AM6T-4807DH35		±7.2VDC	±417mA
AM6T-4809D	AM6T-4809DH35		±9VDC	±334mA
AM6T-4812D	AM6T-4812DH35		±12VDC	±250mA
AM6T-4815D	AM6T-4815DH35		±15VDC	±200mA
AM6T-4818D	AM6T-4818DH35		±18VDC	±167mA
AM6T-4824D	AM6T-4824DH35		±24VDC	±125mA