

# AM5T Series



## 5 watt dc-dc converters

- 24-PIN DIP PACKAGE
- WIDE 2:1 INPUT RANGE
- HIGH EFFICIENCY UP TO 80%
- LOW PROFILE METAL PACKAGE
- INPUT/OUTPUT ISOLATION: 1500 & 3500 VDC
- CONTINUOUS SHORT CIRCUIT PROTECTION
- OPERATING TEMPERATURE: -40°C ... +85°C
- PIN-COMPATIBLE WITH MULTIPLE MANUFACTURERS

### GENERAL DESCRIPTION

Our AM5T series is a family of cost effective 5W 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,  $\pm 3.3$ ,  $\pm 5$ ,  $\pm 7.2$ ,  $\pm 9$ ,  $\pm 12$ ,  $\pm 15$ ,  $\pm 18$  &  $\pm 24$ VDC. 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 stated.

#### Input Specifications:

Voltage range	12VDC, 9~18 VDC 24VDC, 18~36 VDC 48VDC, 36~72 VDC
Filter	$\pi$ (Pi) Network

#### Isolation Specifications:

Rated voltage (60 sec)	1500 & 3500VDC
Resistance	> 1000M $\Omega$
Capacitance	120pF, typ.

#### Environmental Specifications:

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

#### General Specifications:

Efficiency	74% to 80%
Switching Frequency	250KHz, typ. 100% load

#### Output Specifications:

Voltage accuracy	$\pm 1\%$ max.
Voltage balance (Dual Output)	$\pm 1\%$
Ripple & Noise (at 20MHz BW)	60m Vp-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.

#### Physical Specifications:

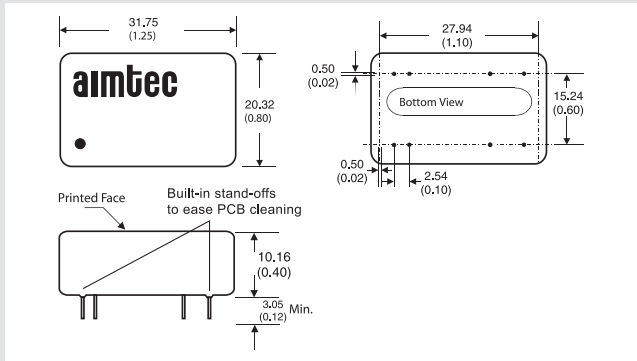
Dimensions	31.75x20.32x10.16mm 1.25x0.8x0.4 inches
Weight	19g
Case material	Nickel-Coated Copper

MTBF: > 1,009,000 hrs (MIL-HDBK-217F, Ground Benign, t=+25°C)

Specifications are subject to change without notification

# AM5T Series

## 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	Output Voltage	Output Current max.
Isolation 1500VDC	Isolation 3500VDC			
AM5T-1203S	AM5T-1203SH35	9VDC - 18VDC	3.3VDC	1250mA
AM5T-1205S	AM5T-1205SH35		5VDC	1000mA
AM5T-1207S	AM5T-1207SH35		7.2VDC	694mA
AM5T-1209S	AM5T-1209SH35		9VDC	556mA
AM5T-1212S	AM5T-1212SH35		12VDC	417mA
AM5T-1215S	AM5T-1215SH35		15VDC	333mA
AM5T-1218S	AM5T-1218SH35		18VDC	278mA
AM5T-1224S	AM5T-1224SH35		24VDC	208mA
AM5T-2403S	AM5T-2403SH35		18VDC - 36VDC	3.3VDC
AM5T-2405S	AM5T-2405SH35	5VDC		1000mA
AM5T-2407S	AM5T-2407SH35	7.2VDC		694mA
AM5T-2409S	AM5T-2409SH35	9VDC		556mA
AM5T-2412S	AM5T-2412SH35	12VDC		417mA
AM5T-2415S	AM5T-2415SH35	15VDC		333mA
AM5T-2418S	AM5T-2418SH35	18VDC		278mA
AM5T-2424S	AM5T-2424SH35	24VDC		208mA
AM5T-4803S	AM5T-4803SH35	36VDC - 72 VDC		3.3VDC
AM5T-4805S	AM5T-4805SH35		5VDC	1000mA
AM5T-4807S	AM5T-4807SH35		7.2VDC	694mA
AM5T-4809S	AM5T-4809SH35		9VDC	556mA
AM5T-4812S	AM5T-4812SH35		12VDC	417mA
AM5T-4815S	AM5T-4815SH35		15VDC	333mA
AM5T-4818S	AM5T-4818SH35		18VDC	278mA
AM5T-4824S	AM5T-4824SH35		24VDC	208mA

# AM5T Series

## MODELS Dual output

DC-DC CONVERTERS

Models		Input Voltage	Ouput Voltage	Ouput Current max.
Isolation 1500VDC	Isolation 3500VDC			
AM5T-1203D	AM5T-1203DH35	9VDC - 18VDC	±3.3VDC	±625mA
AM5T-1205D	AM5T-1205DH35		±5VDC	±500mA
AM5T-1207D	AM5T-1207DH35		±7.2VDC	±347mA
AM5T-1209D	AM5T-1209DH35		±9VDC	±278mA
AM5T-1212D	AM5T-1212DH35		±12VDC	±209mA
AM5T-1215D	AM5T-1215DH35		±15VDC	±167mA
AM5T-1218D	AM5T-1218DH35		±18VDC	±139mA
AM5T-1224D	AM5T-1224DH35		±24VDC	±104mA
AM5T-2403D	AM5T-2403DH35		18VDC - 36VDC	±3.3VDC
AM5T-2405D	AM5T-2405DH35	±5VDC		±500mA
AM5T-2407D	AM5T-2407DH35	±7.2VDC		±347mA
AM5T-2409D	AM5T-2409DH35	±9VDC		±278mA
AM5T-2412D	AM5T-2412DH35	±12VDC		±209mA
AM5T-2415D	AM5T-2415DH35	±15VDC		±167mA
AM5T-2418D	AM5T-2418DH35	±18VDC		±139mA
AM5T-2424D	AM5T-2424DH35	±24VDC		±104mA
AM5T-4803D	AM5T-4803DH35	36VDC - 72VDC		±3.3VDC
AM5T-4805D	AM5T-4805DH35		±5VDC	±500mA
AM5T-4807D	AM5T-4807DH35		±7.2VDC	±347mA
AM5T-4809D	AM5T-4809DH35		±9VDC	±278mA
AM5T-4812D	AM5T-4812DH35		±12VDC	±209mA
AM5T-4815D	AM5T-4815DH35		±15VDC	±167mA
AM5T-4818D	AM5T-4818DH35		±18VDC	±139mA
AM5T-4824D	AM5T-4824DH35		±24VDC	±104mA