

AM8T-C Series

8 watt dc-dc converters



- 24PIN DIP PACKAGE
- PLASTIC ENCAPSULATED CASE
- POWER MODULES FOR PCB MOUNTING
- 2:1 WIDE INPUT RANGE
- REGULATED OUTPUT
- LOW RIPPLE & NOISE
- OPERATING TEMPERATURE : -25...+71°C



GENERAL DESCRIPTION

Our AM8T-C series is a family of cost effective 8W single and dual output DC-DC converters. These converters are shielded on all six sides and aluminum encapsulated, have a non-conductive base and retain an anodized black DIP24 compatible plastic case and dimensions of 31.8x20.3x10.2mm. The high performance features of our AM8T-C components include short circuit protection with current limit auto recovery, tight line regulation and a high

efficiency operation coefficient up to 82%. Twenty four models operate from an input voltage range of 12, 24 & 48VDC producing output voltages of 3.3, 5, 12, 15, 24, ± 5 , ± 12 & ± 15 VDC. The normal operation is specified over the full operating temperature range of -25°C to +71°C with no derating required. Cooling is done 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 48 VDC, 36~75VDC
Filter	π (Pi) Network

Isolation Specifications:

Rated voltage	1500VDC
Resistance	>1000 Mohms
Capacitance	1000pF, typ.

General Specifications:

Efficiency	78% to 82%
Switching frequency	300KHz, typ. 100% load

Environmental Specifications:

Operating temperature	-25°C ...+71°C
Storage temperature	-55°C ...+105°C
Case temperature	+95°C, max.
Humidity (non-condensing)	Up to 95%
Cooling	Free-air convection

Output Specifications:

Voltage accuracy	$\pm 2\%$, max.
Ripple	<0.2% Vout +20mVmax (Vp-p)
Noise	<0.5% Vout +50mVmax (Vp-p)
Short circuit protection	Current limit, auto-recovery
Over current protection	Works over 120% of rating and recovers automatically
Line regulation (HL-LL)	$\pm 0.5\%$, typ.
Load regulation (10-100%)	$\pm 2\%$, typ.
Temperature coefficient	$\pm 0.02\%/^{\circ}\text{C}$, typ.

Physical Specifications:

Dimensions	31.8x20.3x10.2mm, tolerance $\pm 0.5\text{mm}$ 1.25x0.8x0.4inches
Weight	13g
Case material	Six-side shielded Aluminum with Non-Conductive base, Black Anodize

MTBF: > 800,000 hrs (MIL-HDBK-217F, Ground Benign, $t=+25^{\circ}\text{C}$)

Specifications are subject to change without notification

DC-DC CONVERTERS