

# 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 & ±15VDC. 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	p (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	±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)	±0.5%, typ.
Load regulation (10-100%)	±2%, typ.
Temperature coefficient	±0.02%/°C, typ.

#### Physical Specifications:

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

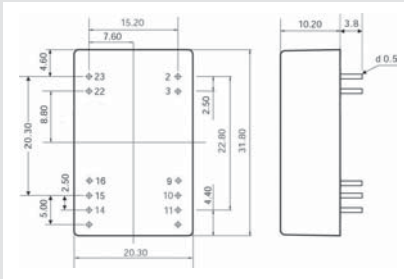
MTBF: > 800,000 hrs (MIL-HDBK-217F, Ground Benign, t=+25°C)

Specifications are subject to change without notification

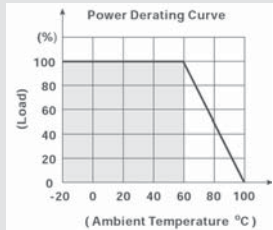
# AM8T-C Series

## OUTLINE DIMENSIONS & PIN CONNECTIONS

### MECHANICAL DIMENSION (Bottom View)



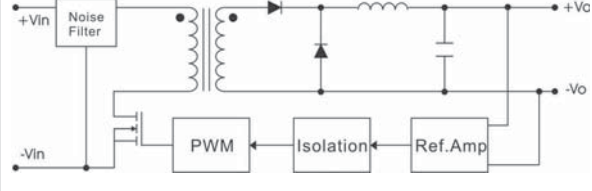
### DERATING



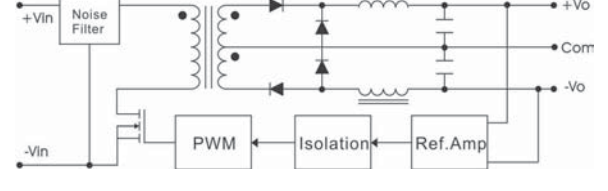
Pin	1500VDC	
	Single	Dual
2	-V Input	-V Input
3	-V Input	-V Input
9	N.C.	Common
10	N.C.	N.C.
11	N.C.	-V Output
14	+V Output	+V Output
15	N.C.	N.C.
16	-V Output	Common
22	+V Input	+V Input
23	+V Input	+V Input

### BLOCK DIAGRAM

#### Single Output



#### Dual Output



### MODELS Single output

Models	Input Voltage	Ouput Voltage	Ouput Current max.
AM8T-1203SC	9VDC - 18VDC	3.3VDC	2000mA
AM8T-1205SC		5VDC	1500mA
AM8T-1212SC		12VDC	660mA
AM8T-1215SC		15VDC	530mA
AM8T-1224SC		24VDC	330mA
AM8T-2403SC	18VDC - 36VDC	3.3VDC	2000mA
AM8T-2405SC		5VDC	1500mA
AM8T-2412SC		12VDC	660mA
AM8T-2415SC		15VDC	530mA
AM8T-2424SC	24VDC	330mA	
AM8T-4803SC	36VDC - 75VDC	3.3VDC	2000mA
AM8T-4805SC		5VDC	1500mA
AM8T-4812SC		12VDC	660mA
AM8T-4815SC		15VDC	530mA
AM8T-4824SC		24VDC	330mA

### Dual output

Models	Input Voltage	Ouput Voltage	Ouput Current max.
AM8T-1205DC	9VDC - 18VDC	±5VDC	±800mA
AM8T-1212DC		±12VDC	±330mA
AM8T-1215DC		±15VDC	±260mA
AM8T-2405DC	18VDC - 36VDC	±5VDC	±800mA
AM8T-2412DC		±12VDC	±330mA
AM8T-2415DC		±15VDC	±260mA
AM8T-4805DC	36VDC - 75VDC	±5VDC	±800mA
AM8T-4812DC		±12VDC	±330mA
AM8T-4815DC		±15VDC	±260mA