

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 | 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 | $\pm 2\%$, max. |
| Ripple | $<0.2\% V_{out} + 20mV_{max}$ (Vp-p) |
| Noise | $<0.5\% V_{out} + 50mV_{max}$ (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 | $\pm 0.02\%/^{\circ}C$, typ. |

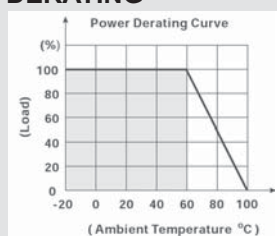
Physical Specifications:

| | |
|---------------|--|
| Dimensions | 31.8x20.3x10.2mm, tolerance $\pm 0.5mm$ 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, $t=+25^{\circ}C$)

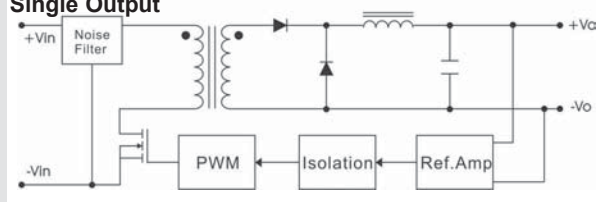
Specifications are subject to change without notification

MECHANICAL DIMENSION (Bottom View)

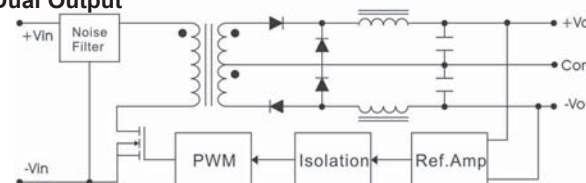


| Pin | 1500VDC | |
|-----|-----------|-----------|
| | Single | Dual |
| 2 | -V Input | -V Input |
| 3 | -V Input | -V Input |
| 9 | N.C. | Common |
| 10 | N.C. | N.C. |
| 11 | N.C. | -V Output |
| 14 | +V Output | +V Output |
| 15 | N.C. | N.C. |
| 16 | -V Output | Common |
| 22 | +V Input | +V Input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

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-2415SC | | ±15VDC | ±260mA |
| AM8T-4805DC | 36VDC - 75VDC | ±5VDC | ±800mA |
| AM8T-4812DC | | ±12VDC | ±330mA |
| AM8T-4815DC | | ±15VDC | ±260mA |