



FEATURES:

- RoHS compliant
- 24 Pin DIP Package
- Wide 2:1 input range
- Efficiency up to 85%
- Operating temperature -40°C to + 85°C
- Continuous Short Circuit Protection
- Low ripple and noise
- Input/output Isolation voltage 1500VDC



Models
Single output

| Model | Input Voltage (V) | Output Voltage (V) | Output Current max (mA) | Capacitive load (µF) | Efficiency (%) |
|-------------|-------------------|--------------------|-------------------------|----------------------|----------------|
| AM8T-1203SZ | 9-18 | 3.3 | 2000 | 3300 | 80 |
| AM8T-1205SZ | 9-18 | 5 | 1500 | 2200 | 82 |
| AM8T-1212SZ | 9-18 | 12 | 665 | 470 | 85 |
| AM8T-1215SZ | 9-18 | 15 | 535 | 220 | 83 |
| AM8T-2403SZ | 18-36 | 3.3 | 2000 | 3300 | 80 |
| AM8T-2405SZ | 18-36 | 5 | 1500 | 2200 | 82 |
| AM8T-2412SZ | 18-36 | 12 | 665 | 470 | 85 |
| AM8T-2415SZ | 18-36 | 15 | 535 | 220 | 84 |
| AM8T-4803SZ | 36-72 | 3.3 | 2000 | 3300 | 80 |
| AM8T-4805SZ | 36-72 | 5 | 1500 | 2200 | 82 |
| AM8T-4812SZ | 36-72 | 12 | 665 | 470 | 84 |
| AM8T-4815SZ | 36-72 | 15 | 535 | 220 | 84 |

Models
Dual output

| Model | Input Voltage (V) | Output Voltage (V) | Output Current max (mA) | Capacitive load (µF) | Efficiency (%) |
|-------------|-------------------|--------------------|-------------------------|----------------------|----------------|
| AM8T-1205DZ | 9-18 | ±5 | ±800 | ±1000 | 82 |
| AM8T-1212DZ | 9-18 | ±12 | ±335 | ±220 | 84 |
| AM8T-1215DZ | 9-18 | ±15 | ±265 | ±100 | 84 |
| AM8T-2405DZ | 18-36 | ±5 | ±800 | ±1000 | 82 |
| AM8T-2412DZ | 18-36 | ±12 | ±335 | ±220 | 83 |
| AM8T-2415DZ | 18-36 | ±15 | ±265 | ±100 | 85 |
| AM8T-4805DZ | 36-72 | ±5 | ±800 | ±1000 | 82 |
| AM8T-4812DZ | 36-72 | ±12 | ±335 | ±220 | 85 |
| AM8T-4815DZ | 36-72 | ±15 | ±265 | ±100 | 85 |

Input Specifications

| Parameters | Nominal | Typical | Maximum | Units |
|--------------------------------|----------------|----------|---------|-------|
| Voltage range | 12 | 9-18 | | VDC |
| | 24 | 18-36 | | |
| | 48 | 36-72 | | |
| Filter | π (Pi) Network | | | |
| Turn on Transient process time | | | 350 | ms |
| Start up time | | 20 | | ms |
| Absolute Maximum Rating | 12 Vin | -0.7-24 | | VDC |
| | 24 Vin | -0.7-40 | | |
| | 48 Vin | -0.7-100 | | |
| Peak Input Voltage time | | 100 | | ms |

Isolation Specifications

| Parameters | Conditions | Typical | Rated | Units |
|---------------------|------------|---------|-------|-------|
| Tested I/O voltage | 3 sec | | 1500 | VDC |
| Case/input & Output | | 1000 | | VDC |
| Resistance | | > 1000 | | MOhm |
| Capacitance | | 1000 | | pF |

Output Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|-------------------------------------|------------------|-------------------|---------|-------|
| Voltage accuracy | | ±1 | | % |
| Voltage balance (Dual output model) | Balanced Load | ±1 | | % |
| Short Circuit protection | | Continuous | | |
| Short Circuit restart | | Auto recovery | | |
| Current Limiting | | 140 % of lout max | | |
| Line voltage regulation | HL-LL | ±0.5 | | % |
| Load voltage regulation | 10% to 100% load | ±0.5 | | % |
| Temperature coefficient | | ±0.02 | | %/°C |
| Rising time | | 10 | | ms |
| Ripple and Noise | | 75 | | mVp-p |

General Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|------------------------|-----------------------------------|---|--------------------------|-------|
| Switching frequency | 100% load | 330 | | KHz |
| Operating temperature | With Derating above 55°C | -40 to +85 | | °C |
| Storage temperature | | -40 to +125 | | °C |
| Max Case temperature | | | +100 | °C |
| Cooling | | Free air convection | | |
| Humidity | | | 95 | % |
| Case material | | Nickel coated cooper | | |
| Weight | | 17 | | g |
| Dimensions (L x H x W) | Tolerance ±0.5 mm or ±0.02 inches | 1.25 x 0.80 x 0.40 inches | 31.80 x 20.30 x 10.20 mm | |
| MTBF | | >1 121 000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C) | | |

NOTE: All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified.

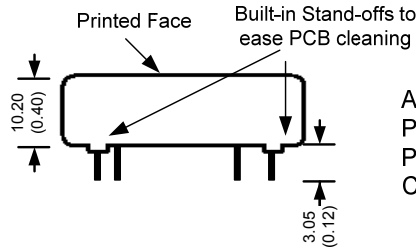
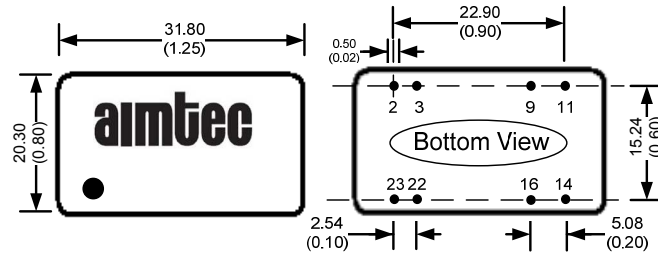
Safety Specifications

| Parameters | |
|-----------------|---|
| Agency Approval | CE |
| Standards | IEC 60950-1:2005 (2 nd Edition); EN 60950-1:2006 |
| | EN55022 Class A, EN55024 |
| | IEC61000-4-2, Perf. Criteria B |
| | IEC61000-4-3, Perf. Criteria A |
| | IEC61000-4-4, Perf. Criteria B (external 220uF/100V cap required) |
| | IEC61000-4-5, Perf. Criteria B (external 220uF/100V cap required) |
| | IEC61000-4-6, Perf. Criteria A |
| | IEC61000-4-8, Perf. Criteria A |

Pin Out Specifications

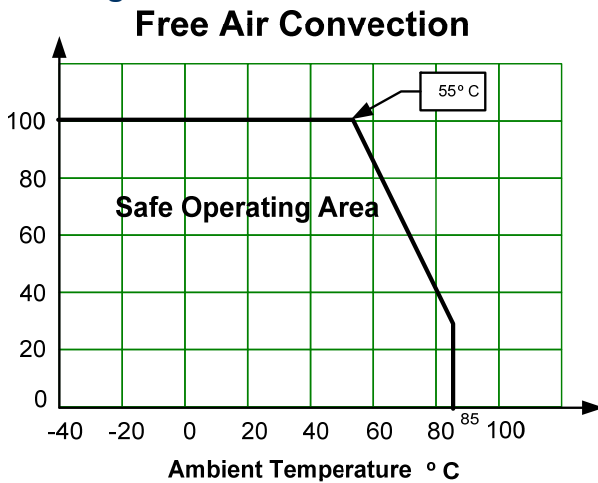
| Pin | Single | Dual |
|-----|-----------|------------|
| 2 | -V Input | -V Input |
| 3 | -V Input | -V Input |
| 9 | No pin | Common |
| 11 | N.C. | -V Output |
| 14 | +V Output | + V Output |
| 16 | -V Output | Common |
| 22 | +V Input | +V Input |
| 23 | +V Input | +V Input |

Dimensions (Bottom view)



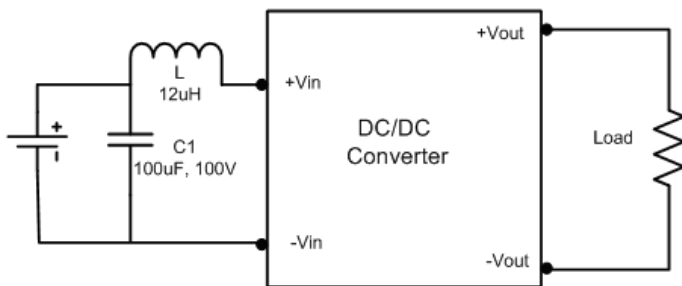
All dimensions are typical: millimeters (inches)
Pin Diameter: 0.50 ± 0.05 (0.02 ± 0.002)
Pin Pitch Tolerance: ± 0.35 (± 0.014)
Case Tolerance: ± 0.5 (± 0.02)

Derating

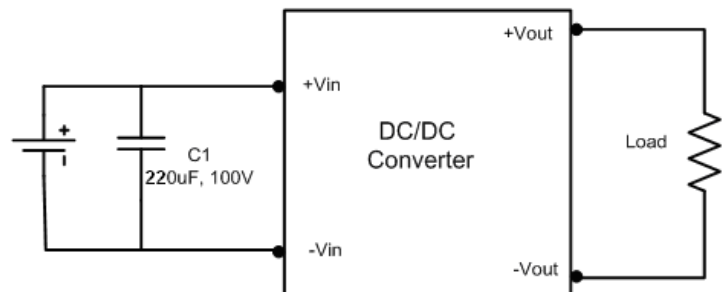


Test Circuits

Conducted Emissions:



Surge:



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