

FEATURES:



- Regulated Single Output
- Continuous Short Circuit Protection
- RoHS Compliant
- MTBF>1,500,000 hours
- 1000VDC Isolation
- Operating temperature: -40°C to +85°C
- Industry Standard Pinout
- SIP7 Package



odels
Single output

| Model | Input Voltage (V) | Output Voltage (V) | Output Current max (mA) | Isolation (VDC) | Efficiency (%) |
|----------------|-------------------|--------------------|-------------------------|-----------------|----------------|
| AM1DR-0503S-RZ | 4.5-5.5 | 3.3 | 303 | 1000 | 55 |
| AM1DR-0505S-RZ | 4.5-5.5 | 5 | 200 | 1000 | 64 |
| AM1DR-0507S-RZ | 4.5-5.5 | 7.2 | 139 | 1000 | 64 |
| AM1DR-0509S-RZ | 4.5-5.5 | 9 | 111 | 1000 | 65 |
| AM1DR-0512S-RZ | 4.5-5.5 | 12 | 83 | 1000 | 66 |
| AM1DR-0515S-RZ | 4.5-5.5 | 15 | 67 | 1000 | 66 |
| AM1DR-1203S-RZ | 10.8-13.2 | 3.3 | 303 | 1000 | 56 |
| AM1DR-1205S-RZ | 10.8-13.2 | 5 | 200 | 1000 | 64 |
| AM1DR-1207S-RZ | 10.8-13.2 | 7.2 | 139 | 1000 | 65 |
| AM1DR-1209S-RZ | 10.8-13.2 | 9 | 111 | 1000 | 66 |
| AM1DR-1212S-RZ | 10.8-13.2 | 12 | 83 | 1000 | 66 |
| AM1DR-1215S-RZ | 10.8-13.2 | 15 | 67 | 1000 | 68 |
| AM1DR-2403S-RZ | 21.6- 26.4 | 3.3 | 303 | 1000 | 56 |
| AM1DR-2405S-RZ | 21.6- 26.4 | 5 | 200 | 1000 | 63 |
| AM1DR-2407S-RZ | 21.6- 26.4 | 7.2 | 139 | 1000 | 65 |
| AM1DR-2409S-RZ | 21.6- 26.4 | 9 | 111 | 1000 | 66 |
| AM1DR-2412S-RZ | 21.6- 26.4 | 12 | 83 | 1000 | 67 |
| AM1DR-2415S-RZ | 21.6- 26.4 | 15 | 67 | 1000 | 67 |

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.

Input Specifications

| Parameters | Nominal | Typical | Maximum | Units |
|----------------------------------|-----------|------------|---------|--------|
| Voltage range | 5 | 4.5- 5.5 | | VDC |
| | 12 | 10.8-13.2 | | |
| | 24 | 21.6- 26.4 | | |
| Filter | Capacitor | | | |
| Absolute Maximum Rating (100 ms) | 5 | | 7 | VDC |
| | 12 | | 15 | |
| | 24 | | 28 | |
| No load input current | | | 45 | mA |
| Input reflected ripple current | | 20 | | mA p-p |

Isolation Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|--------------------|------------|---------|---------|-------|
| Tested I/O voltage | 3 sec | 1000 | | VDC |
| Resistance | At 500VDC | >1000 | | MOhm |
| Capacitance | | 60 | | pF |

Output Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|--------------------------|------------|---------------|---------|----------|
| Voltage accuracy | | ±2 | | % |
| Short Circuit protection | | Continuous | | |
| Short circuit restart | | Auto-Recovery | | |
| Line voltage regulation | LL ~ HL | ±0.5 | | % of Vin |

Output Specifications (continued)

| Parameters | Conditions | Typical | Maximum | Units |
|---------------------------------------|----------------------|---------|---------|--------|
| Load voltage regulation | From 0% to 100% Load | ±0.5 | | % |
| Load voltage regulation (3.3V output) | From 0% to 100% Load | ±1 | | % |
| Temperature coefficient | | ±0.02 | | %/°C |
| Ripple & Noise | 20MHz Bandwidth | 50 | | mV p-p |

General Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|-------------------------------|----------------------------|--|------------|-------|
| Switching frequency | | 50 (variable) | | KHz |
| Operating temperature | Full load | | -40 to +85 | °C |
| Storage temperature | | -40 to +125 | | °C |
| Maximum case temperature | | | 100 | °C |
| Cooling | | Free Air Convection | | |
| Humidity | | | 95 | % RH |
| Case material | | Non-Conductive Plastic (UL94V-0) | | |
| Weight | | 2.7 | | g |
| Dimensions (L x W x H) | | 19.50 x 7.20 x 9.50 mm (0.77 x 0.28 x 0.37 inches) | | |
| MTBF | | >1,500,000 hrs dual (MIL-HDBK -217F, Ground Benign, t=+25°C) | | |
| Maximum soldering temperature | 1.5mm from case for 10 sec | | 260 | °C |

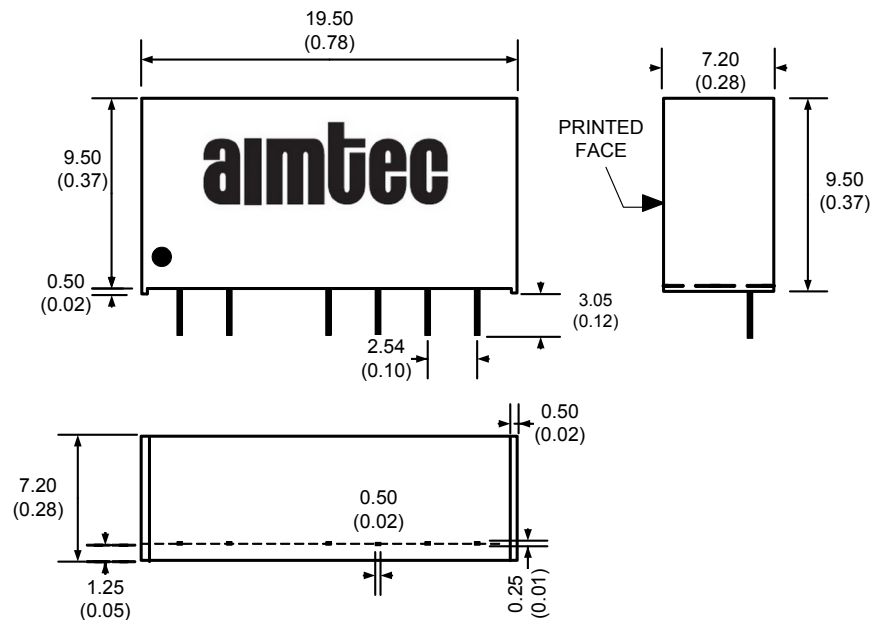
Safety Specifications

| Parameters | |
|------------------|------------------------------|
| Safety Standards | Designed to meet IEC 60950-1 |

Pin Out Specifications

| Pin | Single |
|-----|------------|
| 1 | + V input |
| 2 | - V input |
| 4 | - V output |
| 5 | No Pin |
| 6 | + V output |
| 7 | No Pin |

Dimensions



NOTE: 1. Datasheets are updated as needed and as such, specifications are subject to change without notice. Once printed or downloaded, datasheets are no longer controlled by Aimtec; refer to www.aimtec.com for the most current product specifications. 2. Product labels shown, including safety agency certifications on labels, may vary based on the date manufactured. 3. Mechanical drawings and specifications are for reference only. 4. All specifications are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified. 5. Aimtec may not have conducted destructive testing or chemical analysis on all internal components and chemicals at the time of publishing this document. CAS numbers and other limited information are considered proprietary and may not be available for release. 6. This product is not designed for use in critical life support systems, equipment used in hazardous environments, nuclear control systems or other such applications which necessitate specific safety and regulatory standards other the ones listed in this datasheet. 7. Warranty is in accordance with Aimtec's standard Terms of Sale available at www.aimtec.com.