



FEATURES:

- RoHS compliant
- Regulated output voltage
- Low ripple and noise
- High efficiency up to 70%
- Operating temperature -40°C to + 85°C
- Input / Output Isolation 1000 & 3000VDC
- Pin compatible with multiple manufacturers
- 7 pin SIP package

Models

Single output

| Model | Input Voltage (V) | Output Voltage (V) | Output Current max (mA) | Isolation (VDC) | Max Capacitive Load (uF) | Efficiency (Full load) (%) |
|-----------------|-------------------|--------------------|-------------------------|-----------------|--------------------------|----------------------------|
| AM1DR-0503SZ | 4.5-5.5 | 3.3 | 300 | 1000 | 220 | 57 |
| AM1DR-0505SZ | 4.5-5.5 | 5 | 200 | 1000 | 220 | 67 |
| AM1DR-0507SZ | 4.5-5.5 | 7.2 | 138 | 1000 | 220 | 65 |
| AM1DR-0509SZ | 4.5-5.5 | 9 | 111 | 1000 | 220 | 67 |
| AM1DR-0512SZ | 4.5-5.5 | 12 | 84 | 1000 | 220 | 70 |
| AM1DR-0515SZ | 4.5-5.5 | 15 | 67 | 1000 | 220 | 70 |
| AM1DR-1203SZ | 10.8-13.2 | 3.3 | 300 | 1000 | 220 | 57 |
| AM1DR-1205SZ | 10.8-13.2 | 5 | 200 | 1000 | 220 | 65 |
| AM1DR-1207SZ | 10.8-13.2 | 7.2 | 138 | 1000 | 220 | 65 |
| AM1DR-1209SZ | 10.8-13.2 | 9 | 111 | 1000 | 220 | 67 |
| AM1DR-1212SZ | 10.8-13.2 | 12 | 84 | 1000 | 220 | 70 |
| AM1DR-1215SZ | 10.8-13.2 | 15 | 67 | 1000 | 220 | 70 |
| AM1DR-2403SZ | 21.6-26.4 | 3.3 | 300 | 1000 | 220 | 60 |
| AM1DR-2405SZ | 21.6-26.4 | 5 | 200 | 1000 | 220 | 68 |
| AM1DR-2407SZ | 21.6-26.4 | 7.2 | 138 | 1000 | 220 | 65 |
| AM1DR-2409SZ | 21.6-26.4 | 9 | 111 | 1000 | 220 | 68 |
| AM1DR-2412SZ | 21.6-26.4 | 12 | 84 | 1000 | 220 | 70 |
| AM1DR-2415SZ | 21.6-26.4 | 15 | 67 | 1000 | 220 | 70 |
| AM1DR-0503SH30Z | 4.5-5.5 | 3.3 | 300 | 3000 | 220 | 57 |
| AM1DR-0505SH30Z | 4.5-5.5 | 5 | 200 | 3000 | 220 | 67 |
| AM1DR-0507SH30Z | 4.5-5.5 | 7.2 | 138 | 3000 | 220 | 65 |
| AM1DR-0509SH30Z | 4.5-5.5 | 9 | 111 | 3000 | 220 | 67 |
| AM1DR-0512SH30Z | 4.5-5.5 | 12 | 84 | 3000 | 220 | 70 |
| AM1DR-0515SH30Z | 4.5-5.5 | 15 | 67 | 3000 | 220 | 70 |
| AM1DR-1203SH30Z | 10.8-13.2 | 3.3 | 300 | 3000 | 220 | 57 |
| AM1DR-1205SH30Z | 10.8-13.2 | 5 | 200 | 3000 | 220 | 65 |
| AM1DR-1207SH30Z | 10.8-13.2 | 7.2 | 138 | 3000 | 220 | 65 |
| AM1DR-1209SH30Z | 10.8-13.2 | 9 | 111 | 3000 | 220 | 67 |
| AM1DR-1212SH30Z | 10.8-13.2 | 12 | 84 | 3000 | 220 | 70 |
| AM1DR-1215SH30Z | 10.8-13.2 | 15 | 67 | 3000 | 220 | 70 |
| AM1DR-2403SH30Z | 21.6-26.4 | 3.3 | 300 | 3000 | 220 | 60 |
| AM1DR-2405SH30Z | 21.6-26.4 | 5 | 200 | 3000 | 220 | 65 |
| AM1DR-2407SH30Z | 21.6-26.4 | 7.2 | 138 | 3000 | 220 | 65 |
| AM1DR-2409SH30Z | 21.6-26.4 | 9 | 111 | 3000 | 220 | 68 |
| AM1DR-2412SH30Z | 21.6-26.4 | 12 | 84 | 3000 | 220 | 70 |
| AM1DR-2415SH30Z | 21.6-26.4 | 15 | 67 | 3000 | 220 | 70 |

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 | | | |
| Turn on Transient process time | | | 100 | ms |
| Start up time | | 200 | | ms |

Input Specifications (continued)

| Parameters | Nominal | Typical | Maximum | Units |
|-------------------------|---------|---------|---------|-------|
| Absolute Maximum Rating | 5 Vin | 0-7 | | VDC |
| | 12 Vin | 0-15 | | |
| | 24 Vin | 0-28 | | |
| Peak Input Voltage time | | 100 | | ms |

Isolation Specifications

| Parameters | Conditions | Typical | Rated | Units |
|--------------------|------------|---------|-------------|-------|
| Tested I/O voltage | 3 sec | | 1000 & 3000 | VDC |
| Resistance | | > 1000 | | MOhm |
| Capacitance | | 60 | | pF |

Output Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|---|--------------------|-------------------|---------|--------|
| Voltage accuracy | | ±2 | | % |
| Short Circuit protection | | Momentary (1 sec) | | |
| Line voltage regulation (Single) | | ±0.5 | | % |
| Load voltage regulation (Single) | 0% to 100% load | ±0.5 | | % |
| Load voltage regulation (Single) 3.3V output model | 0% to 100% load | ±1.0 | | % |
| Temperature coefficient | | ±0.02 | | %/°C |
| Ripple & Noise | At 20MHz Bandwidth | 60 | | mV p-p |
| Capacitive load | | | 220 | µF |
| Rising time | | 50 | | ms |

General Specifications

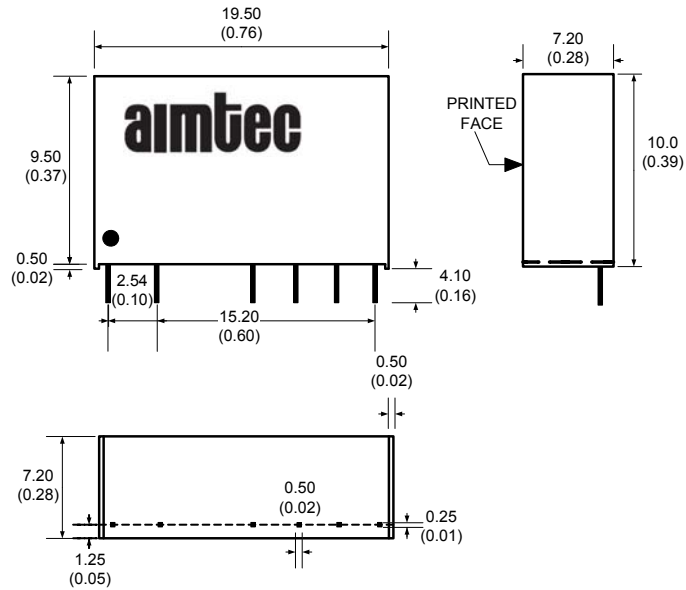
| Parameters | Conditions | Typical | Maximum | Units |
|------------------------|----------------------------|---|------------------------|-------|
| Switching frequency | 100% load | 125 | | KHz |
| Max Case temperature | | | +95 | °C |
| Operating temperature | Full Load without Derating | -40 to +85 | | °C |
| Storage temperature | | -55 to +125 | | °C |
| Derating | | Not Required | | |
| Cooling | | Free air convection | | |
| Humidity | | | 95 | % |
| Case material | | Non conductive black plastic | | |
| Weight | | 2.7 | | g |
| Dimensions (L x W x H) | | 0.76 x 0.28 x 0.37 inch | 19.50 x 7.20 x 9.50 mm | |
| MTBF | | >880 000 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

Pin Out Specifications

| Pin | 1000VDC | 3000VDC |
|-----|------------|------------|
| 1 | + V Input | + V Input |
| 2 | - V Input | - V Input |
| 4 | - V Output | No pin |
| 5 | No pin | - V Output |
| 6 | + V Output | No pin |
| 7 | No pin | + V Output |

Dimensions



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