

Series AM1/4SS-NZ





FEATURES:

- Unregulated
- 4 Pin SIP Package
- Low ripple and noise
- High efficiency up to 82%
- Operating temperature -40°C to +105°C
- Input / Output isolation 1500 VDC
- Pin compatible with multiple manufacturers
- Continuous Short Circuit Protection







| Model | Input Voltage (V) | Output Voltage (V) | Output Current max (mA) | Isolation (VDC) | Max. Capacitive Load (µF) | Efficiency (%) |
|------------------|----------------------|-----------------------|----------------------------|--------------------|---------------------------------|-------------------|
| AM1/4SS-0303S-NZ | 2.97-3.63 | 3.3 | 76 | 1500 | 220 | 74 |
| AM1/4SS-0305S-NZ | 2.97-3.63 | 5 | 50 | 1500 | 220 | 75 |
| AM1/4SS-0503S-NZ | 4.5-5.5 | 3.3 | 76 | 1500 | 220 | 74 |
| AM1/4SS-0505S-NZ | 4.5-5.5 | 5 | 50 | 1500 | 220 | 76 |
| AM1/4SS-0512S-NZ | 4.5-5.5 | 12 | 21 | 1500 | 220 | 77 |
| AM1/4SS-1205S-NZ | 10.8-13.2 | 5 | 50 | 1500 | 220 | 66 |
| AM1/4SS-1505S-NZ | 13.5-16.5 | 5 | 50 | 1500 | 220 | 66 |
| AM1/4SS-2405S-NZ | 21.6-26.4 | 5 | 50 | 1500 | 220 | 69 |
| AM1/4SS-2409S-NZ | 21.6-26.4 | 9 | 28 | 1500 | 220 | 66 |

Input Specifications

| Parameters | Nominal | Typical | Maximum | Units |
|-----------------------------------|--------------------------|-----------|---------|--------|
| | 3.3 | 2.97-3.63 | | |
| | 5 | 4.5-5.5 | | |
| Voltage range | 12 | 10.8-13.2 | | VDC |
| | 15 | 13.5-16.5 | | |
| | 24 | 21.6-26.4 | | |
| | 3.3 | | 5 | |
| | 5 | | 9 | |
| Absolute Max Rating (1 sec. max.) | 12 | | 18 | VDC |
| | 15 | | 21 | |
| | 24 | | 30 | |
| Filter | Capacitor | | | |
| Reflected Input ripple current | 3.3 & 5V Input Others | 20 5 | | mA p-p |

Isolation Specifications

| Parameters | Conditions | Typical | Rated | Units |
|--------------------|-------------------------|---------|-------|-------|
| Tested I/O voltage | 60 sec, 1mA | | 1500 | VDC |
| Resistance | I/O Isolation of 500VDC | > 1000 | | MOhm |
| Capacitance | 100KHz/0.1V | 20 | | pF |

Output Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|--------------------------|--|--------------|----------------------|----------|
| Voltage accuracy | See tolerance graph | ±5 | | % |
| Short Circuit protection | | C | ontinuous, auto-reco | very |
| Line voltage regulation | For 1.0% Vin, 3.3V Model For 1.0% Vin, Others | ±1.5 ±1.2 | | % of Vin |
| Load voltage regulation | Load 10 – 100% | 12 | | % |
| Temperature coefficient | | ±0.02 | | %/°C |
| Ripple & Noise | At 20 MHz Bandwidth | 60 | | m Vp-p |

General Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|---------------------|------------|---------|---------|-------|
| Switching frequency | 100% load | 50-500 | | KHz |



Series AM1/4SS-NZ

| Your Power Partner | | | 0.25 Watt D | C-DC Converter |
|----------------------------|---|------------------|-------------------|-----------------|
| Operating temperature | Derating Above 85°C -40 to +105 | | +105 | °C |
| Storage temperature | | -55 to | +125 | °C |
| Maximum case temperature | | | 125 | °C |
| Cooling | | Free air convec | tion | |
| Humidity | Non condensing | | 95 | % |
| Soldering Lead Temperature | 1.5mm from Lead, for 10 Sec | | 300 | °C |
| Case material | Plastic UL94-VO | | | |
| Weight | | 1.2 | | g |
| Dimensions (L x H x W) | | 0.46 x 0.40x 0.2 | 24 inches 11.60 x | 10.16 x 6.00 mm |
| MTBF | >3500K hrs (MIL-HDBK -217F, Ground Benign, t=+25°C) | | | 5) |

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.

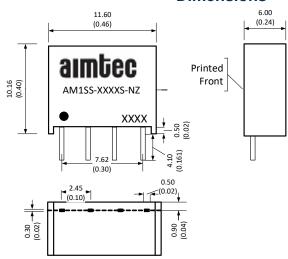
Safety Specifications

| Parameters | | |
|------------------|---------------------------------------|--|
| Agency approvals | cULus | |
| Standards | Information technology Equipment | UL 60950-1 |
| | EMI - Conducted and radiated emission | EN55022, class B (see recommended circuit) |
| | Electrostatic Discharge Immunity | IEC 61000-4-2: Contact ±8kV, Criteria B |

Pin Out Specifications

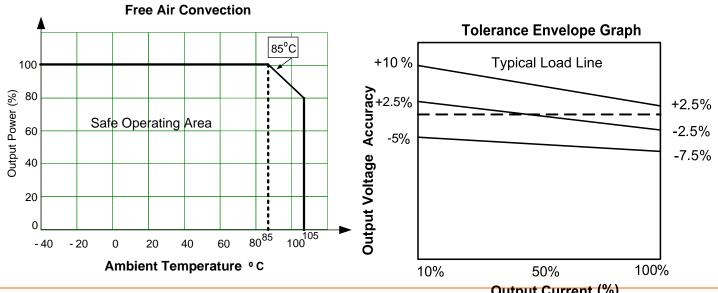
| Pin | Single |
|-----|-----------|
| 1 | - V Input |
| 2 | +V Input |
| 3 | -V Output |
| 4 | +V Output |

Dimensions



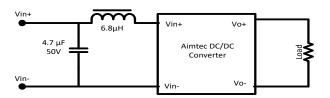
Derating

Typical Characteristics





Recommended Circuit for EMI Class B



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