



FEATURES:

- Ultra Compact Footprint 1"x1"
- Ultra-Wide Input Range 4:1
- 1500 VDC Isolation
- Remote ON / OFF Function
- Output Short Circuit Protection
- Operating Temperature -40°C to +85°C
- Over Voltage, Over Load Protection
- Efficiency up to 89%



Models Single output

| Model | Input Voltage (V) | Output Voltage (V) | Output Current Max (A) | Isolation (VDC) | Input Current Full No Load (mA) | | Max Capacitive Load (uF) | Efficiency (%) |
|-----------------|-------------------|--------------------|------------------------|-----------------|-----------------------------------|----|--------------------------|----------------|
| AM15CW-2403S-FZ | 9-36 | 3.3 | 4 | 1500 | 671 | 59 | 12000 | 86 |
| AM15CW-2405S-FZ | 9-36 | 5 | 3 | 1500 | 744 | 53 | 6000 | 88 |
| AM15CW-2412S-FZ | 9-36 | 12 | 1.3 | 1500 | 783 | 56 | 2000 | 87 |
| AM15CW-2415S-FZ | 9-36 | 15 | 1 | 1500 | 753 | 59 | 1200 | 87 |
| AM15CW-4803S-FZ | 18-75 | 3.3 | 4 | 1500 | 335 | 27 | 12000 | 86 |
| AM15CW-4805S-FZ | 18-75 | 5 | 3 | 1500 | 368 | 24 | 6000 | 89 |
| AM15CW-4812S-FZ | 18-75 | 12 | 1.3 | 1500 | 382 | 28 | 2000 | 89 |
| AM15CW-4815S-FZ | 18-75 | 15 | 1 | 1500 | 368 | 29 | 1200 | 89 |

Models Dual output

| Model | Input Voltage (V) | Output Voltage (V) | Output Current Max (A) | Isolation (VDC) | Input Current Full No Load (mA) | | Max Capacitive Load (uF) | Efficiency (%) |
|-----------------|-------------------|--------------------|------------------------|-----------------|-----------------------------------|----|--------------------------|----------------|
| AM15CW-2405D-FZ | 9-36 | ±5 | ±1.5 | 1500 | 772 | 49 | ±3000 | 85 |
| AM15CW-2412D-FZ | 9-36 | ±12 | ±0.625 | 1500 | 753 | 58 | ±1000 | 87 |
| AM15CW-2415D-FZ | 9-36 | ±15 | ±0.5 | 1500 | 753 | 60 | ±600 | 87 |
| AM15CW-4805D-FZ | 18-75 | ±5 | ±1.5 | 1500 | 386 | 23 | ±3000 | 85 |
| AM15CW-4812D-FZ | 18-75 | ±12 | ±0.625 | 1500 | 372 | 28 | ±1000 | 88 |
| AM15CW-4815D-FZ | 18-75 | ±15 | ±0.5 | 1500 | 368 | 30 | ±600 | 89 |

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 | 24 48 | 9-36 18-75 | | VDC |
| Filter | π | | | |
| Start up time | Nominal Vin with constant resistive load | | 72 | ms |
| Absolute Maximum Rating | 24 Vin 48 Vin | | 50 100 | VDC |
| Peak Input Voltage time | | | 100 | ms |
| On/Off control | ON 3.5 to 12VDC (or open) ; OFF 0 to 0.7 VDC or short to Vin pin 2 On source current <0.2mA, OFF idle current – <12mA | | | |
| Under voltage lockout | 24 Vin ON/OFF 48Vin ON/OFF | 8.5 /7 17/15 | | VDC |
| Input reflected ripple current | | 60 | | mA p-p |

Isolation Specifications

| Parameters | Conditions | Typical | Rated | Units |
|--------------------|------------|---------|-------|-------|
| Tested I/O voltage | 3 sec | | 1500 | VDC |
| Resistance | | >1000 | | MOhm |
| Capacitance | | 550 | | pF |

Output Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|----------------------------------|----------------------------------|---------------|---------|--------|
| Voltage accuracy | | ±1 | | % |
| Over voltage protection | Zener Diode Clamp | 120 | | % |
| Over load protection | % of Full Load at Nominal Input | 110 | | % |
| Short Circuit protection | | Continuous | | |
| Short circuit restart | | Auto-Recovery | | |
| Line voltage regulation | HL-LL | ±1.0 | | % |
| Load voltage regulation (Single) | 25% to 100% load | ±1.0 | | % |
| Load voltage regulation (Dual) | balanced load | ±0.5 | | % |
| | Unbalanced 25% to 100% | ±5.0 | | |
| Temperature coefficient | | ±0.02 | | %/°C |
| Ripple & Noise | 20MHz Bandwidth | 80 | | mV p-p |
| Voltage adjustment range | Trim - Single output models only | 10 | | % |
| Transient recovery time | Load step change 50% | 560 | | µS |
| Transient recovery deviation | di/dt = 0.8A/µsec | ±5 | | %of Vo |
| | 3.3V models | ±6 | | |

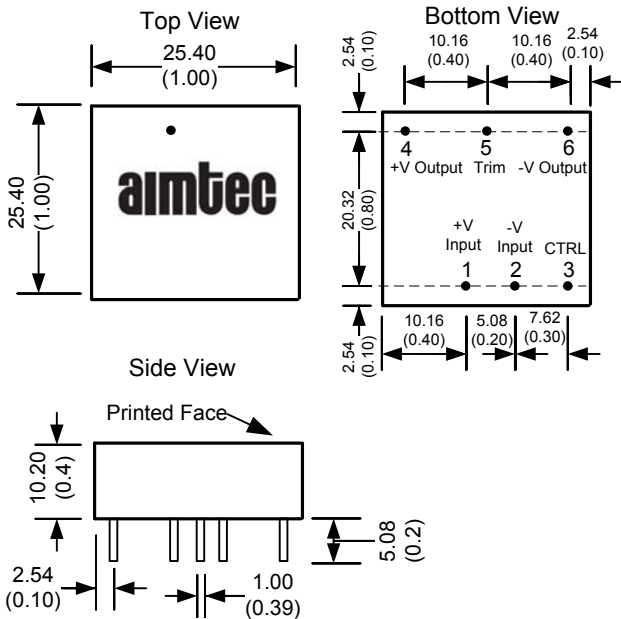
General Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|-------------------------------|--|--------------------------|---------|-------|
| Switching frequency | 100% load | 330 | | KHz |
| Operating temperature | With derating above +63°C | -40 to +85 | | °C |
| Storage temperature | | -55 to +125 | | °C |
| Maximum case temperature | | | 105 | °C |
| Cooling | Free air convection | | | |
| Humidity | | | 95 | % RH |
| Case material | Nickel-coated copper | | | |
| Potting Material | Silicon Rubber (UL94V-0) | | | |
| Weight | | 19.2 | | g |
| Dimensions (L x W x H) | 1.00 x 1.00 x 0.40 inches | 25.40 x 25.40 x 10.20 mm | | |
| MTBF | > 1,580,000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C) | | | |
| Maximum soldering temperature | 1.5mm from case for 10 sec | | 260 | °C |

Pin Out Specifications

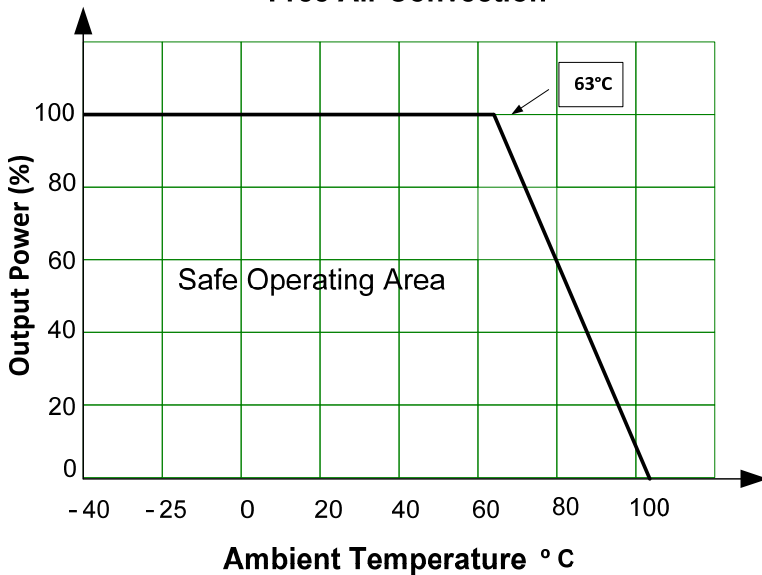
| Pin | Single | Dual |
|-----|----------------|----------------|
| 1 | + V input | + V input |
| 2 | - V input | - V input |
| 3 | On/Off Control | On/Off Control |
| 4 | + V output | + V output |
| 5 | Trim | Common |
| 6 | - V output | - V output |

Dimensions

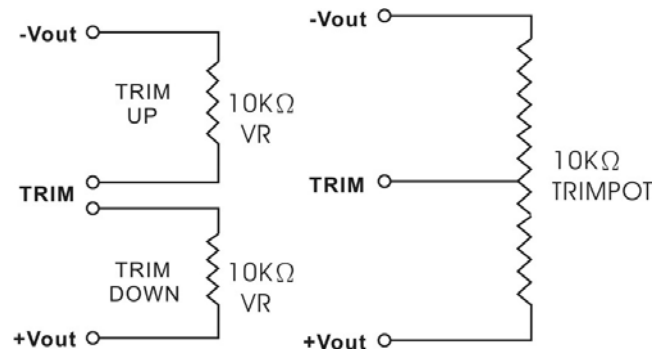


Derating

Free Air Convection



Trimming



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