

**FEATURES:**

- RoHS compliant
- Ultra wide 4:1 input range
- Remote On/Off Control
- 9 pin SIP package
- Operating temperature -40°C to + 85°C
- Continuous Short circuit protection
- High efficiency up to 82%
- Low ripple and noise


**Models**  
**Single output**

| Model          | Input Voltage (V) | Output Voltage (V) | Output Current max (mA) | Isolation (VDC) | Max Capacitive Load (μF) | Efficiency |
|----------------|-------------------|--------------------|-------------------------|-----------------|--------------------------|------------|
| AM2GW-2403S-NZ | 9-36              | 3.3                | 500                     | 1500            | 1200                     | 73         |
| AM2GW-2405S-NZ | 9-36              | 5                  | 400                     | 1500            | 820                      | 75         |
| AM2GW-2409S-NZ | 9-36              | 9                  | 222                     | 1500            | 680                      | 78         |
| AM2GW-2412S-NZ | 9-36              | 12                 | 167                     | 1500            | 470                      | 82         |
| AM2GW-2415S-NZ | 9-36              | 15                 | 133                     | 1500            | 330                      | 81         |
| AM2GW-4803S-NZ | 18-72             | 3.3                | 500                     | 1500            | 1200                     | 72         |
| AM2GW-4805S-NZ | 18-72             | 5                  | 400                     | 1500            | 820                      | 76         |
| AM2GW-4809S-NZ | 18-72             | 9                  | 222                     | 1500            | 680                      | 78         |
| AM2GW-4812S-NZ | 18-72             | 12                 | 167                     | 1500            | 470                      | 81         |
| AM2GW-4815S-NZ | 18-72             | 15                 | 133                     | 1500            | 330                      | 80         |

**Models**  
**Dual output**

| Model          | Input Voltage (V) | Output Voltage (V) | Output Current max (mA) | Isolation (VDC) | Max Capacitive Load (μF) | Efficiency (%) |
|----------------|-------------------|--------------------|-------------------------|-----------------|--------------------------|----------------|
| AM2GW-2405D-NZ | 9-36              | ±5                 | ±200                    | 1500            | ±330                     | 76             |
| AM2GW-2409D-NZ | 9-36              | ±9                 | ±111                    | 1500            | ±270                     | 78             |
| AM2GW-2412D-NZ | 9-36              | ±12                | ±83                     | 1500            | ±220                     | 82             |
| AM2GW-2415D-NZ | 9-36              | ±15                | ±67                     | 1500            | ±180                     | 81             |
| AM2GW-4805D-NZ | 18-72             | ±5                 | ±200                    | 1500            | ±330                     | 75             |
| AM2GW-4809D-NZ | 18-72             | ±9                 | ±111                    | 1500            | ±270                     | 77             |
| AM2GW-4812D-NZ | 18-72             | ±12                | ±83                     | 1500            | ±220                     | 81             |
| AM2GW-4815D-NZ | 18-72             | ±15                | ±67                     | 1500            | ±180                     | 80             |

**Input Specifications**

| Parameters              | Nominal                      | Typical       | Maximum | Units |
|-------------------------|------------------------------|---------------|---------|-------|
| Voltage range           | 24<br>48                     | 9-36<br>18-72 |         | VDC   |
| Filter                  | Capacitor                    |               |         |       |
| Maximum Rating          | 24 Vin<br>48 Vin             | 40<br>80      |         | VDC   |
| Peak Input Voltage time |                              | 100           |         | ms    |
| On/Off Control          | ON – low or open; OFF – high |               |         |       |
| On/Off input current    |                              | 5             | 10      | mA    |

\* Exceeding the maximum permissible value of 20mA for the Input On/Off current will damage the converter.

**Isolation Specifications**

| Parameters         | Conditions | Typical | Rated | Units |
|--------------------|------------|---------|-------|-------|
| Tested I/O voltage | 60 sec     |         | 1500  | VDC   |
| Resistance         | At 500VDC  | > 1000  |       | MΩhm  |
| Capacitance        |            | 80      |       | pF    |

## Output Specifications

| Parameters               | Conditions         | Typical       | Maximum | Units  |
|--------------------------|--------------------|---------------|---------|--------|
| Voltage accuracy         |                    | ±3            |         | %      |
| Short Circuit protection |                    | Continuous    |         |        |
| Short Circuit restart    |                    | Auto recovery |         |        |
| Line voltage regulation  | LL~HL              | ±0.75         |         | %      |
| Load voltage regulation  | Load 10~100%       | ±1.5          |         | %      |
| Temperature coefficient  |                    | ±0.03         |         | %/°C   |
| Ripple & Noise           | At 20MHz Bandwidth | 100           |         | mV p-p |

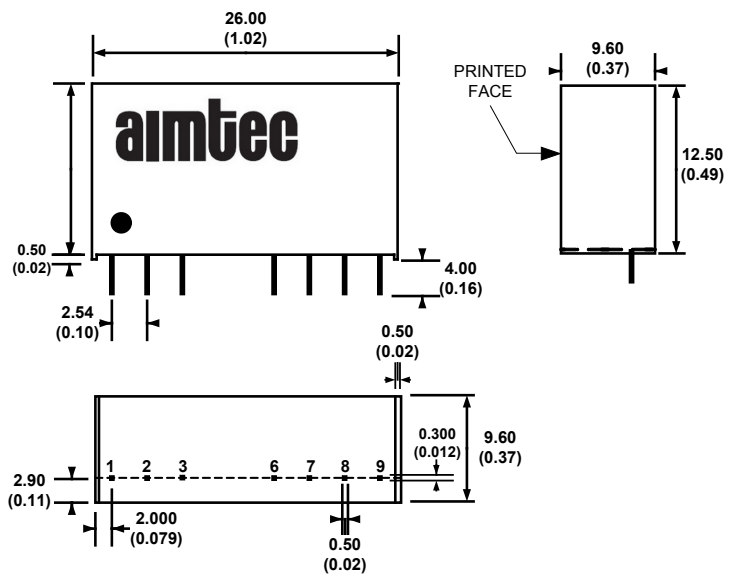
## General Specifications

| Parameters             | Conditions               | Typical                                                 | Maximum | Units |
|------------------------|--------------------------|---------------------------------------------------------|---------|-------|
| Switching frequency    | 100% load, Vin nominal   | >100                                                    | 550     | KHz   |
| Operating temperature  | With derating above 71°C | -40 to +85                                              |         | °C    |
| Storage temperature    |                          | -50 to +125                                             |         | °C    |
| Temperature rise       | Full load                | 15                                                      | 35      | °C    |
| Cooling                |                          | Free air convection                                     |         |       |
| Humidity               |                          |                                                         | 95      | %     |
| Case material          |                          | Non-conductive black plastic (UL94V-0 rated)            |         |       |
| Weight                 |                          | 7                                                       |         | g     |
| Dimensions (L x H x W) |                          | 1.02 x 0.37 x 0.49 inch 26.00 x 9.60 x 12.00 mm         |         |       |
| MTBF                   |                          | >1 000 000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C) |         |       |

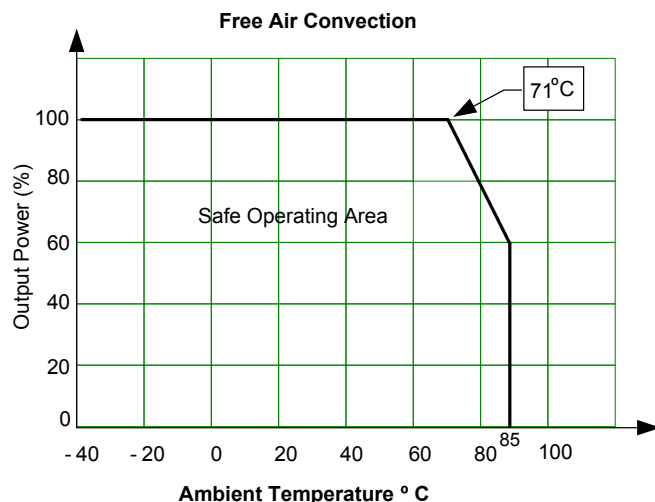
NOTE: All specifications are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified

## Pin Out SpecificationsDimensions

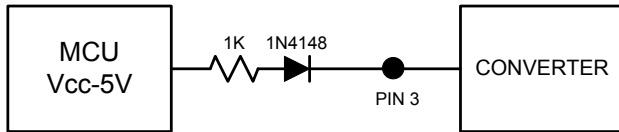
| Pin | Single         | Dual           |
|-----|----------------|----------------|
| 1   | - V Input      | - V Input      |
| 2   | + V Input      | + V Input      |
| 3   | On/Off Control | On/Off Control |
| 6   | + V Output     | + V Output     |
| 7   | N.C.           | Common         |
| 8   | N.C.           | N.C.           |
| 9   | - V Output     | - V Output     |



## Derating



**Control ON/OFF pin connection example:**



The voltage could be applied through a limiting resistor and a switching diode. The converter is in a low power mode during high level phase.

**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](http://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 than the ones listed in this datasheet. 7. Warranty is in accordance with Aimtec's standard Terms of Sale available at [www.aimtec.com](http://www.aimtec.com).