



#### FEATURES:

- RoHS compliant
- Remote On/Off control
- High Efficiency up to 90%
- Input Under voltage protection
- Trim adjustment
- Power modules for PCB mounting
- Operating temperature range: -40 to +85°C
- Standard package

#### Models Single output



| Model          | Input Voltage (V) | Output Voltage (V) | Output Current max (A) | Maximum capacitive load (μF) | Efficiency (%) |
|----------------|-------------------|--------------------|------------------------|------------------------------|----------------|
| AM30K-1203S-NZ | 9 – 18            | 3.3                | 6                      | 19500                        | 85             |
| AM30K-1205S-NZ | 9 – 18            | 5                  | 6                      | 10200                        | 87             |
| AM30K-1212S-NZ | 9 – 18            | 12                 | 2.5                    | 3240                         | 88             |
| AM30K-1215S-NZ | 9 – 18            | 15                 | 2                      | 1100                         | 88             |
| AM30K-1224S-NZ | 9 – 18            | 24                 | 1.25                   | 900                          | 88             |
| AM30K-2403S-NZ | 18 – 36           | 3.3                | 6                      | 19500                        | 86             |
| AM30K-2405S-NZ | 18 – 36           | 5                  | 6                      | 10200                        | 88             |
| AM30K-2412S-NZ | 18 – 36           | 12                 | 2.5                    | 3240                         | 89             |
| AM30K-2415S-NZ | 18 – 36           | 15                 | 2                      | 1100                         | 89             |
| AM30K-2424S-NZ | 18 – 36           | 24                 | 1.25                   | 900                          | 88             |
| AM30K-4803S-NZ | 36 – 75           | 3.3                | 6                      | 19500                        | 87             |
| AM30K-4805S-NZ | 36 – 75           | 5                  | 6                      | 10200                        | 89             |
| AM30K-4812S-NZ | 36 – 75           | 12                 | 2.5                    | 3240                         | 90             |
| AM30K-4815S-NZ | 36 – 75           | 15                 | 2                      | 1100                         | 90             |
| AM30K-4824S-NZ | 36 – 75           | 24                 | 1.25                   | 900                          | 90             |

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            | 12                 | 9-18                                             |         | VDC   |
|                          | 24                 | 18-36                                            |         |       |
|                          | 48                 | 36-75                                            |         |       |
| Filter                   | $\pi$ (Pi) Network |                                                  |         |       |
| Start up time            |                    | 25                                               |         | ms    |
| Absolute Maximum Rating  | 12 Vin             |                                                  | 20      | VDC   |
|                          | 24 Vin             |                                                  | 40      |       |
|                          | 48 Vin             |                                                  | 80      |       |
| Peak Input Voltage time  |                    |                                                  | 100     | ms    |
| Remote On/Off Control    | On                 | 3.5 to 12VDC or open circuit                     |         |       |
|                          | Off                | 0 to 1.2VDC or short circuit between pin 2 and 3 |         |       |
| Under Voltage protection | 9-18 Vin OFF       | 8                                                |         | VDC   |
|                          | 18-36 Vin OFF      | 16                                               |         |       |
|                          | 36-75 Vin OFF      | 33                                               |         |       |

#### Isolation Specifications

| Parameters         | Conditions  | Typical | Rated | Units |
|--------------------|-------------|---------|-------|-------|
| Tested I/O voltage | 60 sec      |         | 1500  | VDC   |
| Resistance         | At 500Vdc   | >1000   |       | MOhm  |
| Capacitance        | 100KHz / 1V | 1000    |       | pF    |

## Output Specifications

| Parameters                       | Conditions           | Typical | Maximum | Units     |
|----------------------------------|----------------------|---------|---------|-----------|
| Voltage accuracy                 |                      | ±1      |         | %         |
| Line voltage regulation          | LL-HL                | ±0.2    |         | % of Vin  |
| Load voltage regulation          | 10% to 100% Load     | ±0.5    |         | %         |
| Short Circuit protection         | Continuous           |         |         |           |
| Short Circuit restart            | Auto Recovery        |         |         |           |
| Over current protection          | Input Voltage Range  | >120    | 160     | %         |
| Temperature coefficient          |                      | 0.02    |         | %/°C      |
| Ripple & Noise                   | 20MHZ Bandwidth      | 100     |         | mV p-p    |
| Transient Response Recovery Time | 25% load step change | 200     |         | µs        |
| Transient response overshoot     |                      | ±2      | ±5      | % of Vout |
| Voltage adjustment range         |                      | ±10     |         | %         |

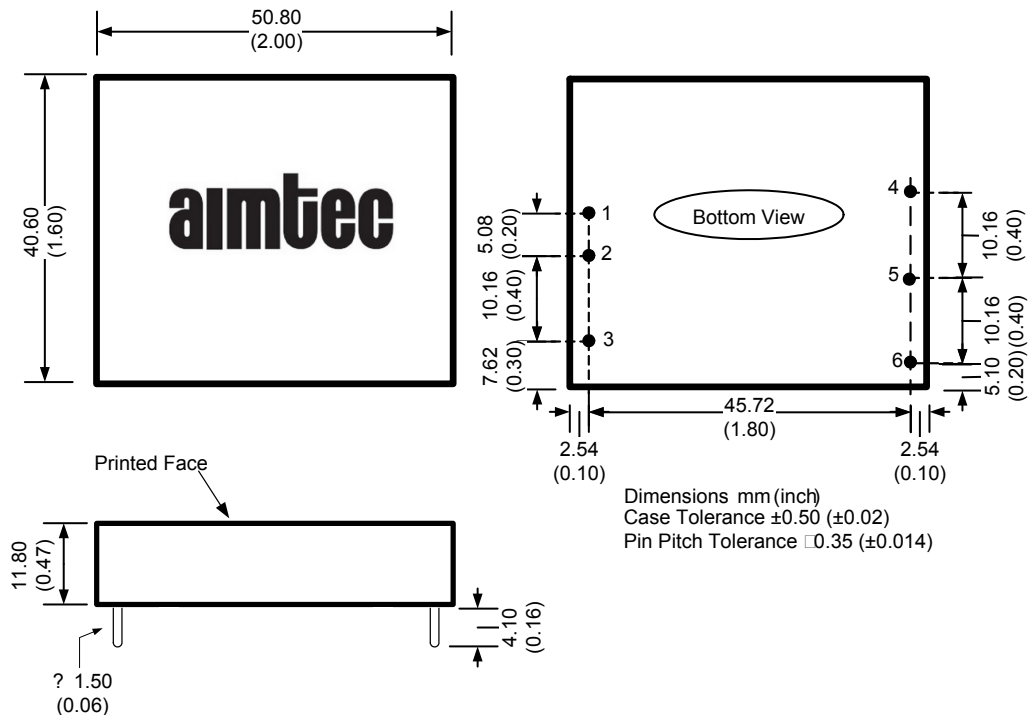
## General Specifications

| Parameters             | Conditions                | Typical                   | Maximum                  | Units |
|------------------------|---------------------------|---------------------------|--------------------------|-------|
| Switching frequency    | 100% load                 | 300                       |                          | KHz   |
| Operating temperature  | With derating above +71°C | -40 to +85                |                          | °C    |
| Storage temperature    |                           | -55 to +105               |                          | °C    |
| Case temperature       |                           |                           | 95                       | °C    |
| Cooling                | Free air convection       |                           |                          |       |
| Humidity               |                           |                           | 95                       | %     |
| Case material          | Copper, Nickel Plated     |                           |                          |       |
| Weight                 |                           | 45                        |                          | g     |
| Dimensions (L X W X H) | Tolerance ±0.5mm          | 2.00 x 1.60 x 0.42 inches | 50.80 x 40.60 x 10.60 mm |       |
| MTBF                   |                           | >1 000 000 hrs            |                          |       |

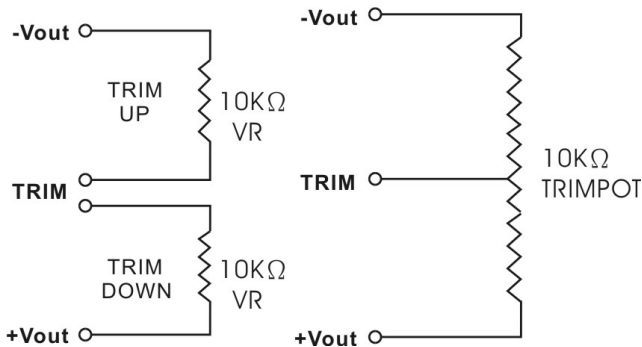
## Pin Out Specifications

## Dimensions

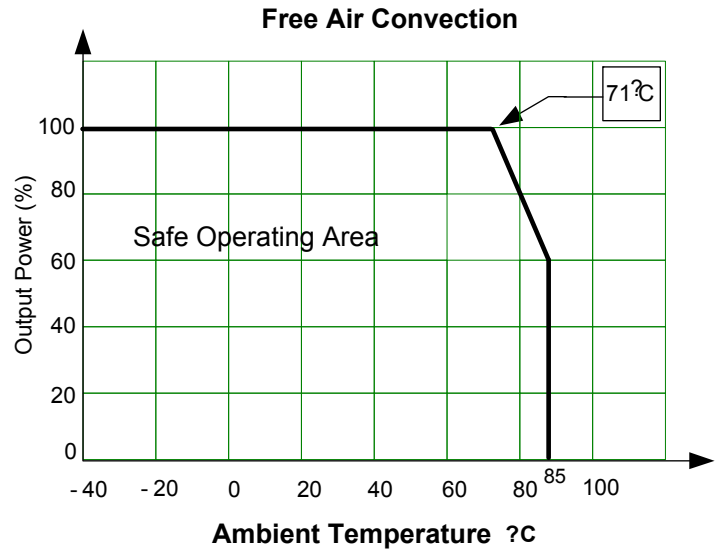
| Pin | Single         |
|-----|----------------|
| 1   | +V Input       |
| 2   | -V Input       |
| 3   | On/Off Control |
| 4   | +V Output      |
| 5   | -V Output      |
| 6   | Trim           |



## Trimming



## Derating



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