

3A Series

3W DC-DC Converters

Features

- 3W Isolated Output
- 24-Pin DIP Package
- Efficiency to 80%
- 2:1 Input Range
- Regulated Outputs
- Pi Input Filter
- Continuous Short Circuit Protection

| Model Number | Input Voltage | Output Voltage | Output Current | Input Current | | % Efficiency | Case |
|--------------|---------------|----------------|----------------|---------------|-----------|--------------|------|
| | | | | No Load | Full Load | | |
| 3A-01 | 4.5-6.0VDC | 5 VDC | 600 mA | 15 mA | 850 mA | 70 | A |
| 3A-02 | | 12 VDC | 250 mA | 15 mA | 800 mA | 75 | |
| 3A-03 | | 15 VDC | 200 mA | 15 mA | 800 mA | 75 | |
| 3A-04 | | ±5 VDC | ±300 mA | 25 mA | 850 mA | 70 | |
| 3A-05 | | ±12 VDC | ±125 mA | 25 mA | 800 mA | 75 | |
| 3A-06 | | ±15 VDC | ±100 mA | 25 mA | 800 mA | 75 | |
| 3A-07 | | 3.3 VDC | 600 mA | 15 mA | 650 mA | 61 | |
| 3A-11 | 9-18VDC | 5 VDC | 600 mA | 7.5 mA | 340 mA | 73 | A |
| 3A-12 | | 12 VDC | 250 mA | 7.5 mA | 320 mA | 78 | |
| 3A-13 | | 15 VDC | 200 mA | 7.5 mA | 320 mA | 78 | |
| 3A-14 | | ±5 VDC | ±300 mA | 12 mA | 340 mA | 73 | |
| 3A-15 | | ±12 VDC | ±125 mA | 12 mA | 320 mA | 78 | |
| 3A-16 | | ±15 VDC | ±100 mA | 12 mA | 320 mA | 78 | |
| 3A-17 | | 3.3 VDC | 600mA | 7.5 mA | 254 mA | 65 | |
| 3A-21 | 18-36VDC | 5 VDC | 600 mA | 5 mA | 168 mA | 74 | A |
| 3A-22 | | 12 VDC | 250 mA | 5 mA | 156 mA | 80 | |
| 3A-23 | | 15 VDC | 200 mA | 5 mA | 156 mA | 80 | |
| 3A-24 | | ±5 VDC | ±300 mA | 7.5 mA | 168 mA | 74 | |
| 3A-25 | | ±12 VDC | ±125 mA | 7.5 mA | 156 mA | 80 | |
| 3A-26 | | ±15 VDC | ±100 mA | 7.5 mA | 156 mA | 80 | |
| 3A-27 | | 3.3 VDC | 600 mA | 5 mA | 125 mA | 66 | |
| 3A-31 | 36-72VDC | 5 VDC | 600 mA | 2 mA | 82 mA | 76 | A |
| 3A-32 | | 12 VDC | 250 mA | 2 mA | 78 mA | 80 | |
| 3A-33 | | 15 VDC | 200 mA | 2 mA | 78 mA | 80 | |
| 3A-34 | | ±5 VDC | ±300 mA | 3 mA | 82 mA | 76 | |
| 3A-35 | | ±12 VDC | ±125 mA | 3mA | 80 mA | 78 | |
| 3A-36 | | ±15 VDC | ±100 mA | 3 mA | 80 mA | 78 | |
| 3A-37 | | 3.3 VDC | 600 mA | 3 mA | 61 mA | 68 | |

Specifications

Input Specifications:

| | | |
|-------------------|----------|--------|
| Input Voltage | | |
| Range..... | 5V..... | 10% |
| | 12V..... | 9-18V |
| | 24V..... | 18-36V |
| | 48V..... | 36-72V |
| Input Filter..... | Pi Type | |

Output Specifications:

| | | |
|--|--------------------------------|----------------|
| Voltage Accuracy..... | +/- 2.0 % max. | |
| Voltage Balance (Dual)..... | +/- 1.0 % max. | |
| Ripple & Noise, 20 MHz BW..... | 3.3V / 5V..... | 100 mVp-pmax. |
| | 12V / 15V..... | 1% p-p max. |
| Temperature Coefficient..... | +/- 0.05 % /° C max. | |
| Short Circuit Protection..... | Continuous | |
| Line Regulation ¹ Single / Dual Output..... | +/- 0.5 % max. | |
| Load Regulation ² Single Output..... | +/- 0.5 % max. | |
| | Dual output ³ | +/- 1.0 % max. |

| | |
|--|--|
| Efficiency..... | see table |
| Isolation Resistance..... | 100Mohm |
| Switching Frequency..... | 100 KHz, min. (for 3A -34H, 100KHz min. frequency at min. load ±30mA) |
| Operating Temperature Range..... | -25° C ~ +71° C |
| Case Temperature..... | 100° C max. |
| Cooling..... | Free Air Convection |
| Storage Temperature Range..... | -40° C ~ +100° C |
| Isolation Voltage..... | 500VDC min. |
| Suffix "H" Models..... | 3K VDC min. |
| Dimensions..... | 1.25" x 0.8" x 0.4 "(31.8 x 20.3 x 10.2 mm) |
| Case Material ⁴ | Non-Conductive Black Plastic |
| Suffix "M" Models(Material) ⁵ | Black Coated Copper with Non-conducted base |

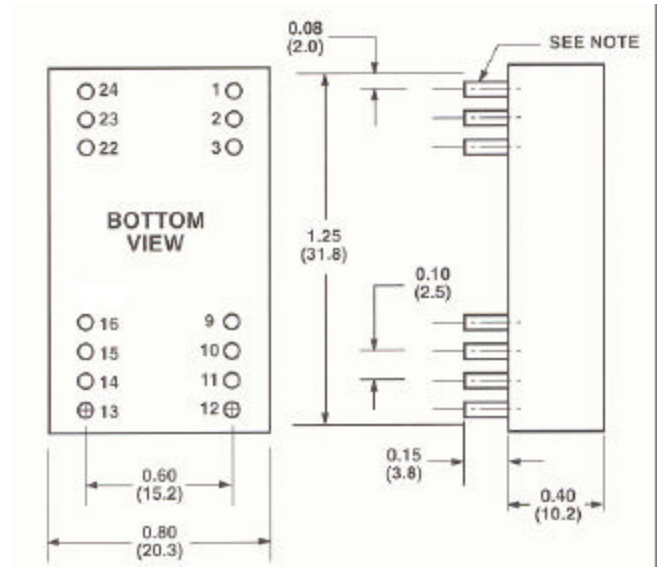
General Specifications :

Outline Information and Pin-out

| PIN CONNECTION | | | | | |
|----------------|---------------|-------------|---------------|---------------|-------------|
| 500VDC | | | 1.5K & 3K VDC | | |
| PIN | Single Output | Dual Output | PIN | Single Output | Dual Output |
| 1 | +V input | +V input | 1 | NP | NP |
| 2 | NC | -V output | 2 | -V input | -V input |
| 3 | NC | Common | 3 | -V input | -V input |
| 9 | NP | NP | 9 | NC | Common |
| 10 | -V output | Common | 10 | NC | NC |
| 11 | +V output | +V output | 11 | NC | -V output |
| 12 | -V input | -V input | 12 | NP | NP |
| 13 | -V input | -V input | 13 | NP | NP |
| 14 | +V output | +V output | 14 | +V output | +V output |
| 15 | -V output | Common | 15 | NC | NC |
| 16 | NP | NP | 16 | -V output | Common |
| 22 | NC | Common | 22 | +V input | +V input |
| 23 | NC | -V output | 23 | +V input | +V input |
| 24 | +V input | +V input | 24 | NP | NP |

- * NP---No Pin
- * TP---Test Point
- * NC---No connection with pin
- * Go---Ground

All dimensions are in inches [mm]
 All pins sizes are dia. 0.02" [0.508mm] and 0.14"[0.35mm] length



- Note: 1. Measured from high line to low line
- 2. Measured from full load to 10% load
- 3. Measured from full load to ¼load
- 4. Non-conductive black plastic only
- 5. Suffix "HM" 1.5KVDC Instead of 3KVDC isolation
- 6. Dual output models with separated output available
- 7. **3A-34H can be used in application with up to 350Vdc working voltage.**

The information and specifications contained in this brief are believed to be accurate and reliable at the time of publication. Specifications are subject to change without notice. Refer to product specification sheet for performance characteristics and application guidelines.