



**TRI-MAG, Inc.**  
your **POWER Specialists**

1601 N. Clancy, Visalia, CA 93291  
(209) 651-2222 Fax (209) 651-0188  
ITT Telex Number: 4994462  
Cable Address: "TRIMAG"

# **TDB4W SERIES**

## **3 Watt**

**DC-DC CONVERTER**

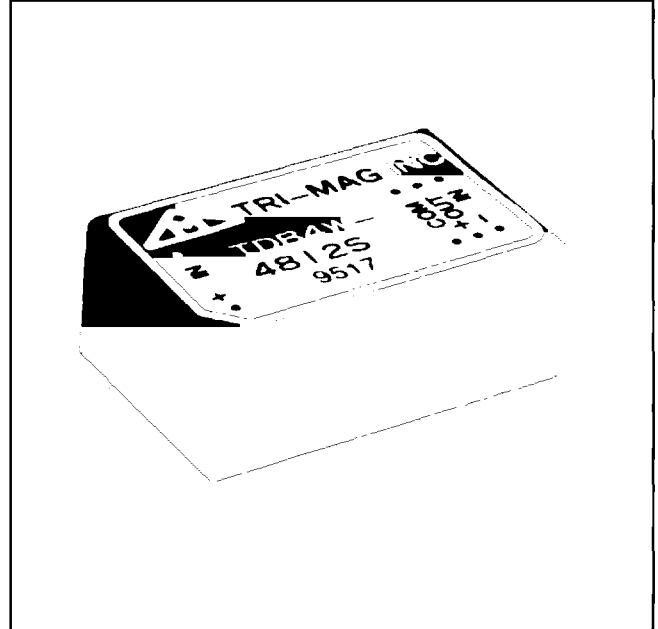
**24 Pin DIP 2:1 Wide Range Input**

### **FEATURES**

- PCB Mountable
- High Stable Regulated Output
- Thermally Conductive Encapsulant
- 100% Burn-In And Triple Tested
- MTBF > 400,000 Hours

### **APPLICATIONS**

- Local Area Network
- Isolation Devices
- Telecommunications
- Industrial And Testing Equipment
- Battery-Powered Equipment
- Medical Equipment
- Distributed Power Systems



### **ELECTRICAL SPECIFICATIONS**

|                          |                                        |
|--------------------------|----------------------------------------|
| Input Voltage Range      | 2:1                                    |
| Output Voltage Accuracy  | $\pm 3\%$                              |
| Load Regulation          | $\pm 1\%$                              |
| Line Regulation          | $\pm 1\%$                              |
| Ripple & Noise           | 50mV p-p for 5V, 1% for other Voltages |
| Short Circuit Protection | Fold-back                              |

### **GENERAL SPECIFICATIONS**

|                           |                            |
|---------------------------|----------------------------|
| Efficiency (at full load) | 70% typical                |
| Isolation Voltage         | 500 VDC                    |
| Isolation Capacitance     | 400pF max.                 |
| Operating Frequency       | 25KHz min.                 |
| Operating Temperature     | -25° C to +70° C           |
| Storage Temperature       | -40°C to +100°C            |
| Isolation Resistance      | 10 <sup>10</sup> Ohms min. |
| Weight                    | 0.5 Oz. (14.2 grams)       |
| Case Material             | Non-conductive Plastic     |



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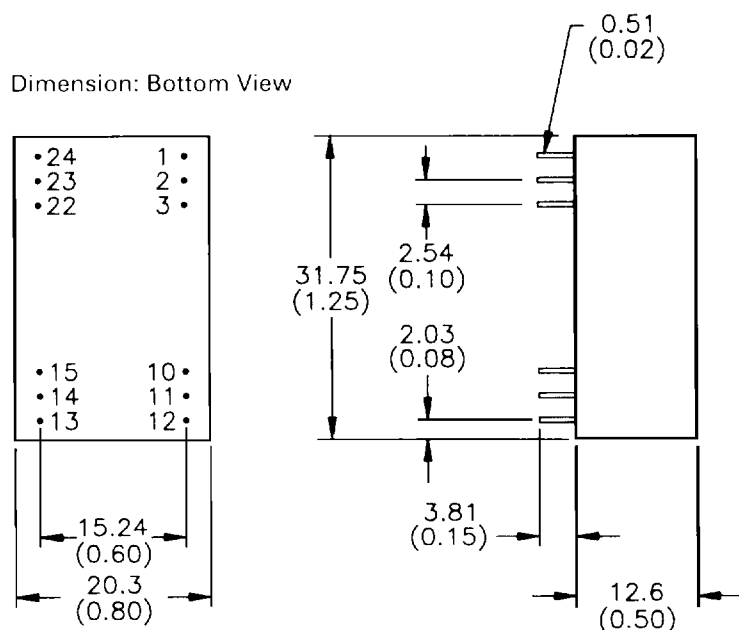
### TDB4W SERIES SPECIFICATIONS

| Model-Type    | Input Voltage (Vdc) | Input Current mA (typ) | Output Voltage (Vdc) | Output Current mA (max) |
|---------------|---------------------|------------------------|----------------------|-------------------------|
| TDB4W - 0505S | 4.5-6.0 (5)         | 870                    | 5                    | 500                     |
| TDB4W - 0512S |                     | 930                    | 12                   | 250                     |
| TDB4W - 0515S |                     | 910                    | 15                   | 200                     |
| TDB4W - 1205S | 9-18 (12)           | 320                    | 5                    | 500                     |
| TDB4W - 1212S |                     | 370                    | 12                   | 250                     |
| TDB4W - 1215S |                     | 370                    | 15                   | 200                     |
| TDB4W - 1205D |                     | 320                    | ±5                   | ±250                    |
| TDB4W - 1212D |                     | 370                    | ±12                  | ±125                    |
| TDB4W - 1215D |                     | 370                    | ±15                  | ±100                    |
| TDB4W - 2405S | 18-36 (24)          | 170                    | 5                    | 500                     |
| TDB4W - 2412S |                     | 186                    | 12                   | 250                     |
| TDB4W - 2415S |                     | 182                    | 15                   | 200                     |
| TDB4W - 2405D |                     | 170                    | ±5                   | ±250                    |
| TDB4W - 2412D |                     | 186                    | ±12                  | ±125                    |
| TDB4W - 2415D |                     | 182                    | ±15                  | ±100                    |
| TDB4W - 4805S | 36-72 (48)          | 85                     | 5                    | 500                     |
| TDB4W - 4812S |                     | 94                     | 12                   | 250                     |
| TDB4W - 4815S |                     | 94                     | 15                   | 200                     |
| TDB4W - 4805D |                     | 85                     | ±5                   | ±250                    |
| TDB4W - 4812D |                     | 94                     | ±12                  | ±125                    |
| TDB4W - 4815D |                     | 94                     | ±15                  | ±100                    |

S: Single Output D: Dual Output

Specifications subject to change without notice.

Dimension: Bottom View



### Pin Connections

| Pin   | Single   | Dual     |
|-------|----------|----------|
| 1&24  | + Input  | + Input  |
| 2&23  | NC       | - Output |
| 3&22  | NC       | Common   |
| 10&15 | - Output | Common   |
| 11&14 | + Output | + Output |
| 12&13 | - Input  | - Input  |