

### Features

- 10W Isolated Output
- Efficiency to 82%
- 2:1 Input Range
- Pi Input Filter
- Continuous short circuit protection
- Meets EN55022 Class A conducted



| Model Number  | Input Voltage | Output Voltage | Output Current |         | Input Current |           | Efficiency |
|---------------|---------------|----------------|----------------|---------|---------------|-----------|------------|
|               |               |                | Min.           | Max.    | No Load       | Full Load |            |
| VBD10-D12-S5  | 9-18VDC       | 5VDC           | 100mA          | 2000mA  | 30mA          | 1100mA    | 76%        |
| VBD10-D12-S12 | 9-18VDC       | 12VDC          | 45mA           | 830mA   | 30mA          | 1065mA    | 78%        |
| VBD10-D12-S15 | 9-18VDC       | 15VDC          | 35mA           | 666mA   | 30mA          | 1065mA    | 78%        |
| VBD10-D12-D12 | 9-18VDC       | ±12VDC         | ±25mA          | ±415mA  | 40mA          | 1065mA    | 78%        |
| VBD10-D12-D15 | 9-18VDC       | ±15VDC         | ±20mA          | ±333mA  | 40mA          | 1065mA    | 78%        |
| VBD10-D12-D5  | 9-18VDC       | ±5VDC          | ±50mA          | ±1000mA | 40mA          | 1065mA    | 78%        |
| VBD10-D24-S5  | 18-36VDC      | 5VDC           | 100mA          | 2000mA  | 20mA          | 535mA     | 78%        |
| VBD10-D24-S12 | 18-36VDC      | 12VDC          | 45mA           | 830mA   | 20mA          | 520mA     | 80%        |
| VBD10-D24-S15 | 18-36VDC      | 15VDC          | 35mA           | 666mA   | 20mA          | 520mA     | 80%        |
| VBD10-D24-D12 | 18-36VDC      | ±12VDC         | ±25mA          | ±415mA  | 20mA          | 520mA     | 80%        |
| VBD10-D24-D15 | 18-36VDC      | ±15VDC         | ±20mA          | ±333mA  | 20mA          | 520mA     | 80%        |
| VBD10-D24-D5  | 18-36VDC      | ±5VDC          | ±50mA          | ±1000mA | 20mA          | 520mA     | 80%        |
| VBD10-D48-S5  | 36-72VDC      | 5VDC           | 100mA          | 2000mA  | 10mA          | 260mA     | 80%        |
| VBD10-D48-S12 | 36-72VDC      | 12VDC          | 45mA           | 830mA   | 10mA          | 254mA     | 82%        |
| VBD10-D48-S15 | 36-72VDC      | 15VDC          | 35mA           | 666mA   | 10mA          | 254mA     | 82%        |
| VBD10-D48-D12 | 36-72VDC      | ±12VDC         | ±25mA          | ±415mA  | 10mA          | 254mA     | 82%        |
| VBD10-D48-D15 | 36-72VDC      | ±15VDC         | ±20mA          | ±333mA  | 10mA          | 254mA     | 82%        |
| VBD10-D48-D5  | 36-72VDC      | ±5VDC          | ±50mA          | ±1000mA | 10mA          | 254mA     | 82%        |
| VBD10-D5-S5   | 4.7-9VDC      | 5VDC           | 0mA            | 1600mA  | 15mA          | 2130mA    | 75%        |
| VBD10-D5-S12  | 4.7-9VDC      | 12VDC          | 0mA            | 666mA   | 15mA          | 2100mA    | 76%        |
| VBD10-D5-S15  | 4.7-9VDC      | 15VDC          | 0mA            | 533mA   | 15mA          | 2100mA    | 76%        |
| VBD10-D5-D12  | 4.7-9VDC      | ±12VDC         | 0mA            | ±333mA  | 15mA          | 2100mA    | 76%        |
| VBD10-D5-D15  | 4.7-9VDC      | ±15VDC         | 0mA            | ±266mA  | 15mA          | 2100mA    | 76%        |
| VBD10-D5-D5   | 4.7-9VDC      | ±5VDC          | 0mA            | ±800mA  | 15mA          | 2100mA    | 76%        |

### Input

|                     |         |        |
|---------------------|---------|--------|
| Input Voltage Range | 5V      | 4.7-9V |
|                     | 12V     | 9-18V  |
|                     | 24V     | 18-36V |
|                     | 48V     | 36-72V |
| Input Filter Type   | PI Type |        |

### Output

|                                                |                 |  |
|------------------------------------------------|-----------------|--|
| Voltage Accuracy                               | ±1.0% max.      |  |
| Transient Response Single 25% Step Load Change | <500μ sec.      |  |
| Minimum Output Current                         | 10% Full Load   |  |
| Ripple & Noise 20MHz BW,                       | 100mV p-p., max |  |
| Temperature Coefficient                        | ±0.02%/°C       |  |
| Short Circuit Protection                       | Continuous      |  |
| Line Regulation <sup>1</sup> Single Output     | ±0.2% max       |  |
| Load Regulation <sup>2</sup> Single Output     | ±1.0% max       |  |
| Current Limit Threshold Range, % Io rated      | 110%~140%       |  |

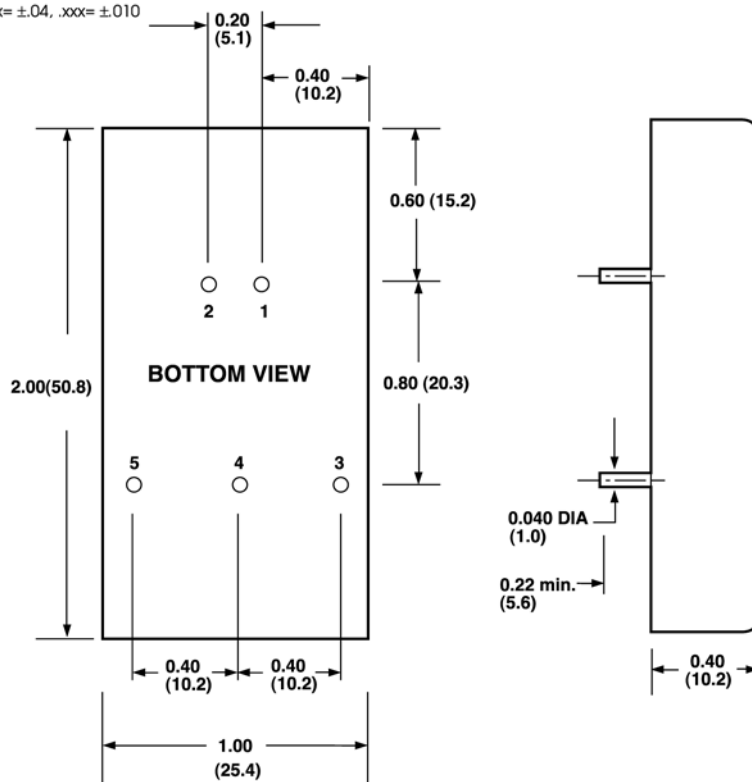
### General Specifications

|                             |                                                 |  |
|-----------------------------|-------------------------------------------------|--|
| Efficiency                  | see table                                       |  |
| Isolation Voltage           | 500VDC min.                                     |  |
| Isolation Resistance        | 10 <sup>9</sup> ohms min                        |  |
| Switching Frequency         | 200KHz, Type                                    |  |
| Operating Temperature Range | -25°C to +71°C                                  |  |
| Case Temperature            | 100°C max.                                      |  |
| Storage Temperature         | -40°C to +100°C                                 |  |
| EMI/RFI                     | Six sided Continuous Shield                     |  |
| Dimensions                  | 2.0x1.0x0.4 inches<br>(50.8x25.4x10.2mm)        |  |
| Case Material               | Black Coated Copper with<br>Non-Conductive Base |  |

#### NOTES:

1. Measured from high line to low line
2. Measured from full load to 1/4 load

All Dimensions In Inches(mm)  
Tolerance .xx= ±.04, .xxx= ±.010


**PIN CONNECTION**

| Pin | Function  |
|-----|-----------|
| 1.  | +Input    |
| 2.  | -Input    |
| 3.  | +Output   |
| 4.  | Common/NP |
| 5.  | -Output   |

NP\*-NO PIN ON SINGLE OUTPUT

All Specifications Typical At Nominal Line, Full Load and 25°C Unless Otherwise Noted.

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