

## **VBED10 Series DC-DC Converter**

Rev. 06-2006

#### **Features**

- -10W isolated output
- -Efficiency to 82%
- ·Pi Input filter
- -2:1 input range
- ·Continuous short cuicuit protection
- ·Meets EN55022 Class A, Conducted



Model	Input	Output	Output	Current	Input	Current	Efficiency
Number	Voltage	Voltage	Min.	Max.	No Load	Full Load	
VBED10-D12-S5	9-18VDC	5VDC	100mA	2000mA	30mA	1100mA	76%
VBED10-D12-S12	9-18VDC	12VDC	45mA	830mA	30mA	1065mA	78%
VBED10-D12-S15	9-18VDC	15VDC	35mA	666mA	30mA	1065mA	78%
VBED10-D12-D12	9-18VDC	±12VDC	±25mA	±415mA	40mA	1065mA	78%
VBED10-D12-D15	9-18VDC	±15VDC	±20mA	±333mA	40mA	1065mA	78%
VBED10-D12-D5	9-18VDC	±5VDC	±50mA	±1000mA	40mA	1065mA	78%
VBED10-D24-S5	18-36VDC	5VDC	100mA	2000mA	20mA	535mA	78%
VBED10-D24-S12	18-36VDC	12VDC	45mA	830mA	20mA	520mA	80%
VBED10-D24-S15	18-36VDC	15VDC	35mA	666mA	20mA	520mA	80%
VBED10-D24-D12	18-36VDC	±12VDC	±25mA	±415mA	20mA	520mA	80%
VBED10-D24-D15	18-36VDC	±15VDC	±20mA	±333mA	20mA	520mA	80%
VBED10-D24-D5	18-36VDC	±5VDC	±50mA	±1000mA	20mA	520mA	80%
VBED10-D48-S5	36-72VDC	5VDC	100mA	2000mA	10mA	260mA	80%
VBED10-D48-S12	36-72VDC	12VDC	45mA	830mA	10mA	254mA	82%
VBED10-D48-S15	36-72VDC	15VDC	35mA	666mA	10mA	254mA	82%
VBED10-D48-D12	36-72VDC	±12VDC	±25mA	±415mA	10mA	254mA	82%
VBED10-D48-D15	36-72VDC	±15VDC	±20mA	±333mA	10mA	254mA	82%
VBED10-D48-D5	36-72VDC	±5VDC	±50mA	±1000mA	10mA	254mA	82%



# **VBED10 Series DC-DC Converter**

Rev. 06-2006

## Input

Input Voltage Range	12V: 9-18V
	24V: 18-36V
	48V: 36-72V
Input Filter	Pi Type

### Output

Voltage Accuracy         Single Output         ±1.0% max.           Dual +Output         ±1.0% max.           -Output         ±1.0% max.           Voltage Balence (Dual)         ±1.0%max           Transient Response:         Single, 25% Step Load Change         <500μ sec.           Dual, FL-1/2±1% Error Band         <500μ sec.           Ripple & Noise         20MHz BW         100 mV p-p max	
-Output ±1.0% max.  Voltage Balence (Dual) ±1.0%max  Transient Response: Single, 25% Step Load Change <500μ sec.  Dual, FL-1/2±1% Error Band <500μ sec.	
Voltage Balence (Dual) ±1.0%max  Transient Response: Single, 25% Step Load Change <500μ sec.  Dual, FL-1/2±1% Error Band <500μ sec.	
Transient Response: Single, 25% Step Load Change <500μ sec.  Dual, FL-1/2±1% Error Band <500μ sec.	
Dual, FL-1/2±1% Error Band <500μ sec.	
<u> </u>	
Ripple & Noise 20MHz BW 100 mV p-p max	
Temperature Coefficient ±0.02%/°C	
Short Circuit Protection continuous	
Line Regulation <sup>1</sup> Single/Dual output ±0.2% max.	
Load Regulation <sup>2</sup> Single/Dual output ±1.0% max.	

**General Specifications** 

Conorai Opocinicationic		
Efficiency	see table	
Isolation Voltage	500VDC min.	
Isolation Resistance	10 <sup>9</sup> Ohm min.	
Switching Frequency	200KHz, min.	
Operating Temperature Range	-25°C to +71°C	
Case Temperature	100°C max.	
Storage Temperature	-40°C to +100°C	
Cooling	Free air convection	
EMI/RFI	Six Sided Continuous Shield	
Dimensions	2x1x0.4 inches	
	(50.8x25.4x10.2mm)	
Case Material	Black coated copper with non-	
	conductive base	

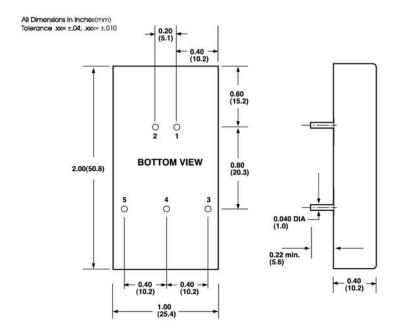
#### NOTES:

- 1. Measured from high line to low line
- 2. Measured from full load to 1/4 load
- 3. A minimum load on the output is necessarry to maintain regulation



### **VBED10 Series DC-DC Converter**

Rev. 06-2006



PIN CO	NNECTION
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.

V-Infinity reserves the right to make changes to its products or to discontinue any product or service without notice, and to advise customers to verify the most up-to-date product information before placing orders. V-Infinity assumes no liability or responsibility for customer's applications using V-Infinity products other than repair or replacing (at V-I's option) V-Infinity products not meeting V-I's published specifications. Nothing will be covered outside of standard product warranty.