

**PART NUMBER:** VBED15 Series

**DESCRIPTION:** dc-dc converter

**Features**

- 15W Isolated Output
- Efficiency to 83%
- 2:1 Input Range
- Continuous Short Circuit Protection
- Remote On/Off Control
- Meets EN55022 Class A, Conducted



Model Number	Input Voltage	Output Voltage	Output Current	Input Current		Efficiency
				No Load	Full Load	
VBED15-D12-S5	9-18VDC	5VDC	3000mA	20mA	1602mA	78%
VBED15-D12-S12	9-18VDC	12VDC	1250mA	20mA	1524mA	82%
VBED15-D12-S 15	9-18VDC	15VDC	1000mA	20mA	1524mA	82%
VBED15-D12-D12	9-18VDC	±12VDC	±625mA	30mA	1506mA	83%
VBED15-D12-D15	9-18VDC	±15VDC	±500mA	30mA	1506mA	83%
VBED15-D12-D5	9-18VDC	±5VDC	±1500mA	30mA	1563mA	80%
VBED15-D12-S3R3	9-18VDC	3.3VDC	3000mA	20mA	1086mA	76%
VBED15-D24-S5	18-36VDC	5VDC	3000mA	20mA	780mA	80%
VBED15-D24-S12	18-36VDC	12VDC	1250mA	20mA	762mA	82%
VBED15-D24-S15	18-36VDC	15VDC	1000mA	20mA	762mA	82%
VBED15-D24-D12	18-36VDC	±12VDC	±625mA	25mA	755mA	83%
VBED15-D24-D15	18-36VDC	±15VDC	±500mA	25mA	755mA	83%
VBED15-D24-D5	18-36VDC	±5VDC	±1500mA	25mA	772mA	81%
VBED15-D24-S3R3	18-36VDC	3.3VDC	3000mA	20mA	543mA	76%
VBED15-D48-S5	36-72VDC	5VDC	3000mA	15mA	391mA	80%
VBED15-D48-S12	36-72VDC	12VDC	1250mA	15mA	377mA	83%
VBED15-D48-S15	36-72VDC	15VDC	1000mA	15mA	377mA	83%
VBED15-D48-D12	36-72VDC	±12VDC	±625mA	20mA	377mA	83%
VBED15-D48-D15	36-72VDC	±15VDC	±500mA	20mA	377mA	83%
VBED15-D48-D5	36-72VDC	±5VDC	±1500mA	20mA	381mA	82%
VBED15-D48-S3R3	36-72VDC	3.3VDC	3000mA	15mA	271mA	76%

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### Input

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

### Output

Voltage Accuracy	Single Output	±1.0% max.
	Dual + Output	±1.0% max.
	Dual - Output	±1.0% max.
Voltage Balance (Dual)	±1.0% max.	
Transient Response	Single Output: 25% Step Load Change	<500µS
	Dual Output: FL-1/2L, ±1% Error Band	<500µS
Ripple & Noise	20MHz BW, w/o .1µF on Output	75mV 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

Efficiency	see table
Isolation Voltage	500VDC min.
Isolation Resistance	10 <sup>8</sup> ohms min
Switching Frequency	300KHz, Typical
Operating Temperature Range	-25°C to +71°C
Case Temperature	100°C max.
Storage Temperature	-40°C to +100°C
safety	approved to UL60950 (E222736)
EMI/RFI	Six sided Continuous Shield
Dimensions	2.0x1.0x0.4 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

**OPTIONS:**

1. Suffix "-1" to the Model number for Remote On/Off Control:
 

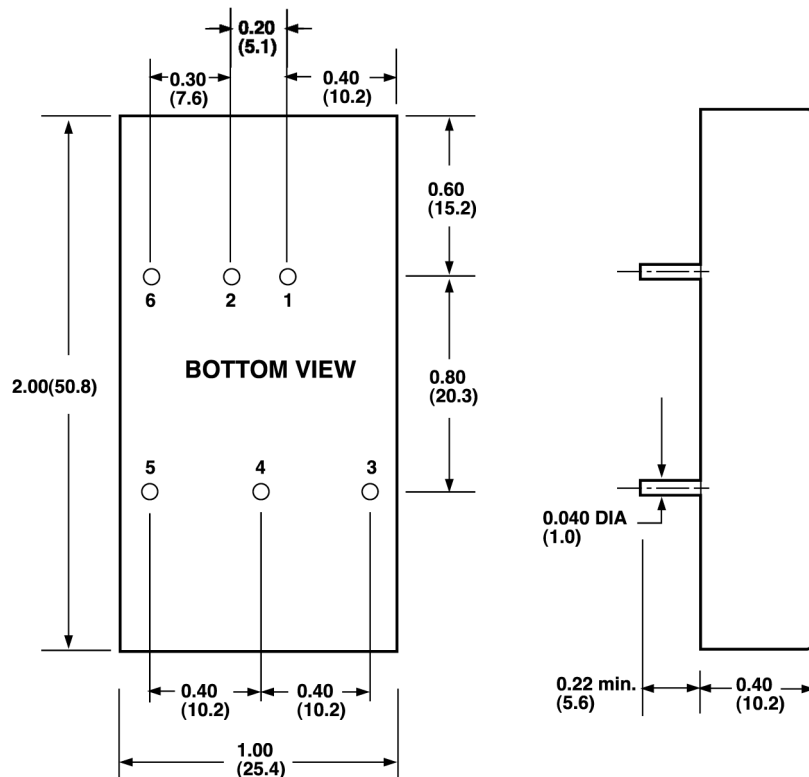
Logic Compatibility	CMOS or Open Collector TTL
Output-ON	>+5.5VDC or Open Circuit
Output-OFF	<1.8VDC
Control Common	Referenced to Input Minus
2. Suffix "A" to the Model Number for Output Voltage adj feature. Single Output Only. Adj. range ±10%.

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## Dimensions (mm)

All Dimensions In Inches(mm)  
Tolerance .xx= ±.04, .xxx= ±0.10

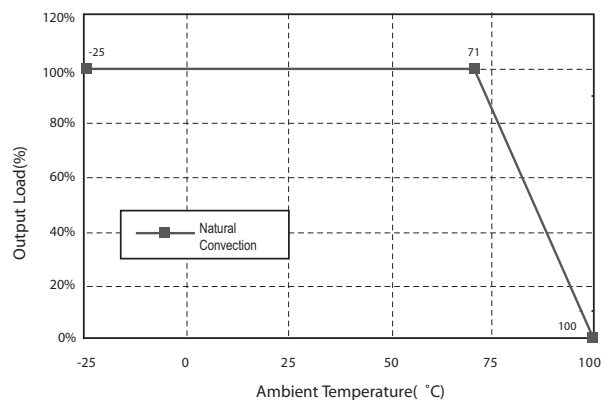


### PIN CONNECTION

Pin	Function
1.	+V Input
2.	-V Input
3.	+V Output
4.	Common/NP/Trim (Option)
5.	-V Output
6.	NP/Remote (Option)

NP\*-NO PIN ON SINGLE OUTPUT

## Derating Curve



## External Output Trim

Output may optionally be externally trimmed ( $\pm 10\%$ ) with a fixed resistor or an external trimpot as shown.

