



# BD3000

## 3W DUAL DC/DC CONVERTER



### Functional Description

The BD3000 is a 3W dual DC/DC converter that accepts 18–36V<sub>IN</sub> and provides ±12V<sub>OUT</sub> in a 24-pin DIP package with a minimum isolation voltage of 2000Vdc, efficiency up to 84% and operating temperature range from -40°C to +80°C.

### Electrical Specifications: Regulated INPUT SPECIFICATIONS

NOTE: Measured at 25°C with the condition of V<sub>IN</sub> = Nominal and Full Load. Specifications subject to change without notice.

PARAMETER	CONDITION / NOTE	MIN	TYP	MAX	UNIT
Input Voltage Range	2:1	18		36	Vdc
Input Filter	π				

### OUTPUT SPECIFICATIONS

PARAMETER	CONDITION / NOTE	MIN	TYP	MAX	UNIT
Output Voltage			±12		Vdc
Output Current			±125		mA
Output Voltage Accuracy			±1		%
Ripple & Noise	@20MHz BW		50		mV <sub>PP</sub>
Line Regulation	Minimum V <sub>IN</sub> to maximum V <sub>IN</sub>			±0.2	%
Load Regulation	10% FL to FL			±0.4	%
Short Circuit Protection	Continuous				

### GENERAL SPECIFICATIONS

PARAMETER	CONDITION / NOTE	MIN	TYP	MAX	UNIT
Efficiency @ FL				84	%
Isolation Voltage (1 min.), Input to Output		2000			Vdc
Isolation Resistance			1		GΩ
Isolation Capacitance			22		pF
Operating Frequency		85			kHz

### ENVIRONMENTAL SPECIFICATIONS

PARAMETER	CONDITION / NOTE	MIN	TYP	MAX	UNIT
Operating Temperature Range	Ambient	-40		+80	°C
Storage Temperature Range		-50		+125	°C
Case Temperature	@T <sub>a</sub> = 25°C		40		°C

### PHYSICAL CHARACTERISTICS

PARAMETER	CONDITION / NOTE	MIN	TYP	MAX	UNIT
Dimensions, Plastic Case (LxWxH)	1.27x0.80x0.50 in. (32.20x20.32x12.70mm)				
Weight, Plastic Case	0.42 oz. (12g)				

### Mechanical Specifications

NOTE: Measured at 25°C with the condition of V<sub>IN</sub> = Nominal and Full Load. Specifications subject to change without notice.

