



BD1001

1W DC/DC CONVERTER

Wide Input Voltage Range

Functional Description

The BD1001 is a 1W Dual $\pm 12V_{OUT}$ $24V_{IN}$ DC/DC Converter designed to operate within a wide input voltage range from $22V_{IN}$ to $36V_{IN}$. Its output tracks the input with a line transfer regulation of 1.2% of the output voltage change to 1% of the input voltage change.

Electrical Specifications: Unregulated

INPUT SPECIFICATIONS

NOTE: Measured at 25°C with the condition of V_N = Nominal and Full Load. Specifications subject to change without notice.

PARAMETER	CONDITION / NOTE	MIN	TYP	MAX	UNIT
Input Voltage Range		22	24	36	Vdc
Input Filter	Capacitor				

OUTPUT SPECIFICATIONS

PARAMETER	CONDITION / NOTE	MIN	TYP	MAX	UNIT
Output Voltage			± 12	± 19	Vdc
Output Current			± 42		mA
Output Voltage Accuracy			± 5		%
Ripple & Noise	@20MHz BW			75	mV _{pp}
Line Regulation	Minimum V_{IN} to maximum V_{IN}		1.2%		per 1% of V_N
Load Regulation	10% FL to FL			10	%
Short Circuit Protection			1		sec

GENERAL SPECIFICATIONS

PARAMETER	CONDITION / NOTE	MIN	TYP	MAX	UNIT
Efficiency	FL	70	84		%
Isolation Voltage (1 min.), Input to Output			1000		Vdc
Isolation Resistance			10^9		Ω
Isolation Capacitance			75		pF

ENVIRONMENTAL SPECIFICATIONS

PARAMETER	CONDITION / NOTE	MIN	TYP	MAX	UNIT
Operating Temperature Range	Ambient	-40		+85	°C
Storage Temperature Range		-55		+125	°C

PHYSICAL CHARACTERISTICS

PARAMETER	CONDITION / NOTE	MIN	TYP	MAX	UNIT
Dimensions, Plastic Case (LxWxH)	0.77x0.24x0.40 in. (19.60x6.00x10.20mm)				
Weight, Plastic Case	0.08 oz. (2.2g)				

Mechanical Specifications

