



BW Series of 2.5 to 3.0 Watt DC/DC Converters

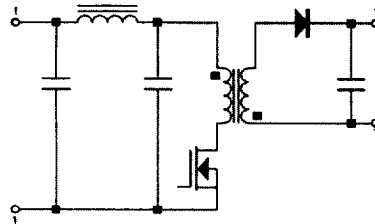


HIGH-DENSITY DC/DC CONVERTERS WITH SINGLE OR DUAL REGULATED OUTPUTS AND WIDE INPUT RANGE. ALL MODELS FEATURE 24-PIN DIP COMPATIBLE CONFIGURATION. AN INTERNAL INPUT Π (Pi) FILTER IS STANDARD AND IS USED TO REDUCE REFLECTED RIPPLE CURRENT. ALL MODELS HAVE A PHENOLIC UL94V0-RATED CASE.



DIMENSIONS:
1.25" x 0.80" x 0.52"
(31.75) x (20.32) x (13.21)mm

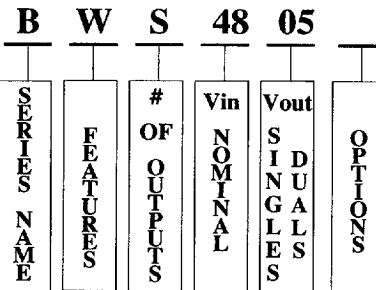
BLOCK DIAGRAM



FEATURES

- Industry Standard Pin Out
- 500 VDC I/O Isolation
- Continuous Short Circuit Protection
- Input Π (Pi) Filter

PART NUMBER SELECTION GUIDE



Features • Series Pass Transistor • Regulated	Output Voltage (VDC) Single Output: 05 = 5V @ 500mA 12 = 12V @ 250mA 15 = 15V @ 200mA Dual Output: 05 = $\pm 0.5V$ @ $\pm 250mA$ 12 = $\pm 1.2V$ @ $\pm 125mA$ 15 = $\pm 1.5V$ @ $\pm 100mA$ <i>For Other Output Voltages Please Consult Factory</i>	Options S (#) = Modification Number I = Industrial Temperature Range (-40°C to +85°C)
# of Outputs S = SINGLE D = DUAL		
Input Voltage Range (VDC) 5 = 4.5 to 9.0 12 = 9.0 to 18.0 24 = 18.0 to 36.0 48 = 36.0 to 72.0		

APPLICATIONS

- A/D-D/A Converters
- RS-232 Drivers
- Industrial Control Circuit
- Operational Amplifiers
- Bias Power For RAMs, ROMs, PROMs



INTERNATIONAL POWER DEVICES, INC.
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PARAMETER	MIN	TYP	MAX	UNITS	CONDITIONS	NOTES:	
GENERAL:							
Switching Frequency	180	200	220	KHz		1. Noderating required up to a maximum case temperature of 85°C. Internal Power Dissipation = Pout* (1-Eff) / Eff.	
Isolation Voltage				VDC			
Input to Output	500			VDC			
Input to Case	500			VDC			
Output to Case	500			VDC			
Isolation Resistance				Ohms			
Input to Output	10 ⁹						
Isolation Capacitance				pF			
Input to Output	80				Note 3		
Short Circuit Protection							
ENVIRONMENTAL:							
Operating Temperature						2. Provided for input fuse selection.	
Commercial Grade	-25		85	°C	Note 1		
Storage Temperature	-40		125	°C	Ambient		
Operating Humidity			95	%	Non-Condensing		
Storage Humidity			95	%	Non-Condensing		
INPUT:							
Input Voltage						3. Continuous Short Circuit Protection is provided. For dual output units the short circuit current on each individual output is equivalent to the short circuit current for a single output unit.	
5 Vin	4.50	5.00	9.00	VDC			
12 Vin	9.00	12.00	18.00	VDC			
24 Vin	18.00	24.00	36.00	VDC			
48 Vin	36.00	48.00	72.00	VDC			
Input Current							
5 Vin			0.76	Amps	Note 2		
12 Vin			0.42	Amps	Note 2		
24 Vin			0.21	Amps	Note 2		
48 Vin			0.11	Amps	Note 2		
Input Ripple Current			20%	Iin max			
Reverse Input Current			100%	Iin max			
No Load Input Power			0.70	W			
OUTPUT:							
Singles:							
Voltage Accuracy			±1.00%	Vout	Full Load	4. Long term continuous operation in this mode is not recommended. Converter will auto-restart once short has been removed.	
Load Regulation			±1.00%	Vout	10% to 100%		
Line Regulation			±1.00%	Vout	LL to HL		
Current Limit			180%	Iout	Note 3		
DUALS:							
Voltage Accuracy			±1.00%	Vout	Full Load		
+Vout			±1.00%	Vout	Full Load		
-Vout			±1.00%	Vout	Full Load		
Load Regulation			±1.00%	Vout	10% to 100%		
+Vout			±1.00%	Vout	10% to 100%		
-Vout			±1.00%	Vout	LL to HL		
Line Regulation			±1.00%	Vout	LL to HL		
Temp. Coefficient			0.02%	/°C			
Voltage Stability			0.05%	Vout			
Ripple and Noise			1.00%	Vout	p-p, 20 MHz BW		
Transient Response							
1/4 to Full load			500	µS	1% Error Band		

- All specifications typical at +25°C Nominal Line and Full Load unless otherwise noted.
- Specifications subject to change without notice.



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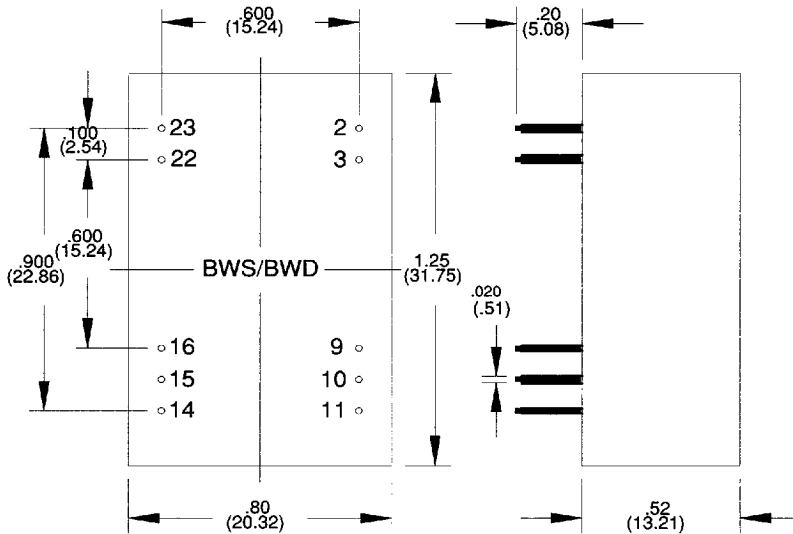
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PIN #	SINGLE	DUAL
1 & 24	No Pin	No Pin
2 & 23	-Vin / +Vin	-Vin / +Vin
3 & 22	-Vin / +Vin	-Vin / +Vin
4 & 21	No Pin	No Pin
5 & 20	No Pin	No Pin
6 & 19	No Pin	No Pin
7 & 18	No Pin	No Pin
8 & 17	No Pin	No Pin
9 & 16	No Connect	No Connect
10 & 15	NC / -Vout	Com / Com
11 & 14	NC / NC	NC / NC
12 & 13	NC / +Vout	-Vout / +Vout

BOTTOM VIEW

Mechanical tolerances are $\pm 0.04''$



Specifications are subject to change without notice.

All dimensions are in inches (MM)

