

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

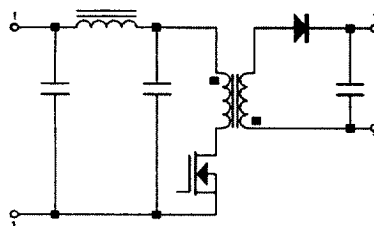
FEATURES

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

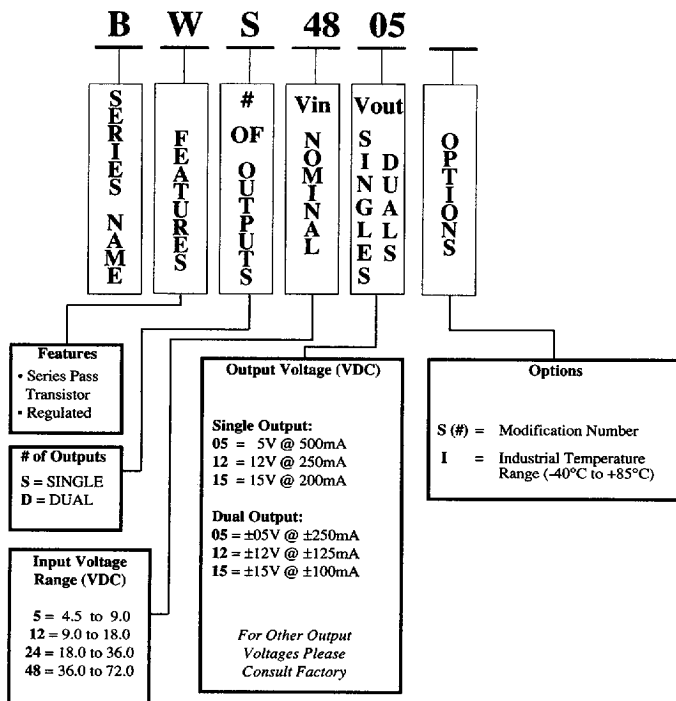
APPLICATIONS

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

BLOCK DIAGRAM



PART NUMBER SELECTION GUIDE





BW Series of 2.5 to 3.0 Watt DC/DC Converters



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 = $P_{out} * (1 - \text{Eff}) / \text{Eff}$.
Isolation Voltage				VDC		
Input to Output	500			VDC		
Input to Case	500			VDC		
Output to Case	500			VDC		
Isolation Resistance				Ohms		2. Provided for input fuse selection.
Input to Output	10 ⁹					
Isolation Capacitance				pF	Note 3	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.
Input to Output	80					
Short Circuit Protection						
ENVIRONMENTAL:						
Operating Temperature						
Commercial Grade	-25		85	°C	Note 1	4. Long term continuous operation in this mode is not recommended. Converter will auto-restart once short has been removed.
Storage Temperature	-40		125	°C	Ambient	
Operating Humidity			95	%	Non-Condensing	
Storage Humidity			95	%	Non-Condensing	
INPUT:						
Input Voltage						
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%	I _{in} max		
Reverse Input Current			100%	I _{in} max		
No Load Input Power			0.70	W		
OUTPUT:						
Singles:						
Voltage Accuracy			±1.00%	V _{out}	Full Load	
Load Regulation			±1.00%	V _{out}	10% to 100%	
Line Regulation			±1.00%	V _{out}	LL to HL	
Current Limit			180%	I _{out}	Note 3	
Duals:						
Voltage Accuracy						
+V _{out}			±1.00%	V _{out}	Full Load	
-V _{out}			±1.00%	V _{out}	Full Load	
Load Regulation						
+V _{out}			±1.00%	V _{out}	10% to 100%	
-V _{out}			±1.00%	V _{out}	10% to 100%	
Line Regulation			±1.00%	V _{out}	LL to HL	
Temp. Coefficient			0.02%	/°C		
Voltage Stability			0.05%	V _{out}		
Ripple and Noise			1.00%	V _{out}	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.



INTERNATIONAL POWER DEVICES, INC.

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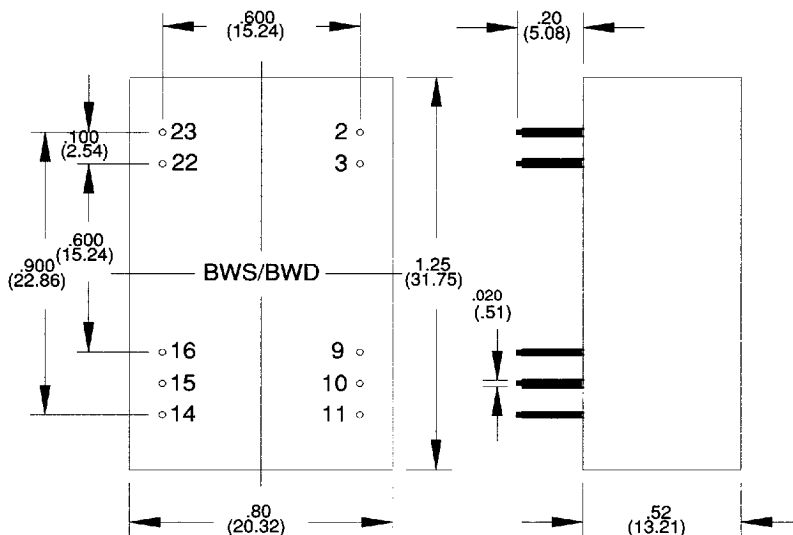
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PIN #	SINGLE	DUAL
1 & 24	No Pin	No Pin
2 & 23	-Vin / +Vin	-Vin / +Vin
3 & 22	-Vin / +Vin	-Vin / +Vin
4 & 21	No Pin	No Pin
5 & 20	No Pin	No Pin
6 & 19	No Pin	No Pin
7 & 18	No Pin	No Pin
8 & 17	No Pin	No Pin
9 & 16	No Connect	No Connect
10 & 15	NC /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

BOTTOM VIEW

Mechanical tolerances are $\pm 0.04"$



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All dimensions are in inches (MM)



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