



BW Series of 2.5 to 3.0 Watt DC/DC Converters

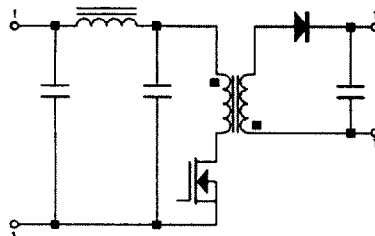


HIGH-DENSITY DC/DC CONVERTERS WITH SINGLE OR DUAL REGULATED OUTPUTS AND WIDE INPUT RANGE. ALL MODELS FEATURE 24-PIN DIP COMPATIBLE CONFIGURATION. AN INTERNAL INPUT Π (Pi) FILTER IS STANDARD AND IS USED TO REDUCE REFLECTED RIPPLE CURRENT. ALL MODELS HAVE A PHENOLIC UL94V0-RATED CASE.



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

BLOCK DIAGRAM



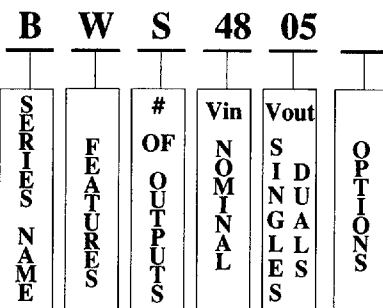
FEATURES

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

APPLICATIONS

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

PART NUMBER SELECTION GUIDE



Features
• Series Pass Transistor
• Regulated

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

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 = $\pm 1.5V$ @ $\pm 100mA$

For Other Output Voltages Please Consult Factory

Options

S (#) = Modification Number
I = Industrial Temperature Range (-40°C to +85°C)

24

INTERNATIONAL POWER DEVICES, INC.
20 Linden Street, Boston, MA 02134 • Phone: (617)782-3331 • Fax: (617)782-7416



■ 4853809 0000298 T55 ■



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. No derating 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			
Input to Output	10 ⁹			pF			
Isolation Capacitance							
Input to Output	80						
Short Circuit Protection					Note 3		
ENVIRONMENTAL:							
Operating Temperature				°C	Note 1	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.	
Commercial Grade	-25		85	°C	Ambient		
Storage Temperature	-40		125	°C	Non-Condensing		
Operating Humidity			95	%	Non-Condensing		
Storage Humidity			95	%			
INPUT:							
Input Voltage							4. Long term continuous operation in this mode is not recommended. Converter will auto-restart once short has been removed.
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:						Full Load 10% to 100% LL to HL Note 3	
Voltage Accuracy			±1.00%	V _{out}			
Load Regulation			±1.00%	V _{out}			
Line Regulation			±1.00%	V _{out}			
Current Limit			180%	I _{out}			
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.

20 Linden Street, Boston, MA 02134 • Phone: (617)782-3331 • Fax: (617)782-7416



