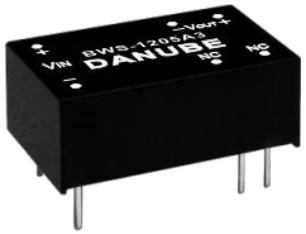
BW SERIES

3W WIDE INPUT RANGE

DANUBE

FEATURES

- DIL PACKAGE
- NO EXTERNAL COMPONENTS REQUIRED
- INTERNAL FILTERING
- 100% BURN IN
- UP TO 3W REGULATED OUTPUT POWER
- HIGH EFFICIENCY & INPUT UVLO
- UL 94V-0 PACKAGE MATERIAL
- CUSTOM SOLUTIONS AVAILABLE
- RoHS COMPLIANT
- 3 YEARS WARRANTY



OUTPUT SPECIFICATIONS

Voltage Setpoint Accuracy	+/-2% max.
Temperature Coefficient	+/-0.05%/°C
Ripple & Noise(20MHz BW)[1]	100mVp-p max.
Line Regulation[2]	+/-1% max.
Load Regulation[3]	+/-0.5% max.
Minimum Load	20% of Full Load
Short Circuit Protection	Continuous
Short Circuit Restart	Automatic
Over Load Protection	150% typ.

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40°C to +71°C
Case Temperature	+100°C max.
Storage Temperature	-55°C to +105°C
Humidity	95% max.
Cooling	Free-Air Convection

INPUT SPECIFICATIONS

Input Voltage Range	2:1 Input Range
Input Filter	Capacitor Type
Protection	Fuse Recommended

GENERAL SPECIFICATIONS

Efficiency	79% min.
Isolation Voltage[4]	1500VDC min.
Isolation Resistance	10^9 ohms min.
Isolation Capacitance	80pF max.
Switching Frequency	100 KHz min.
MTBF[5]	>300,000 Hours
Weight	4.5g typ.
Case Material	Non-Conductive Plastic
Case Size	22.1 mm*13.7mm*8.5mm
Potting Material	Epoxy(UL94V-0)
Radiated Emissions	EN55032 Class B

ALL SPECIFICATIONS TYPICAL AT NOMINAL LINE, FULL LOAD , AND 25 °C UNLESS OTHERWISE NOTED.

---

[1] *Measured with 1uF ceramic capacitor connect to the output pins.*
[2] *High Line to Low Line.*
[3] *Load Regulation is for output load current change from 20% to 100%.*
[4] *For 10 seconds.*
[5] *MIL-HDBK-217F @25 °C , Ground Benign.*

● SELECTION GUIDE
2:1 3W OUTPUT

Specifications typical at ta=25°C,nominal input voltage , rated output current unless otherwise specified.

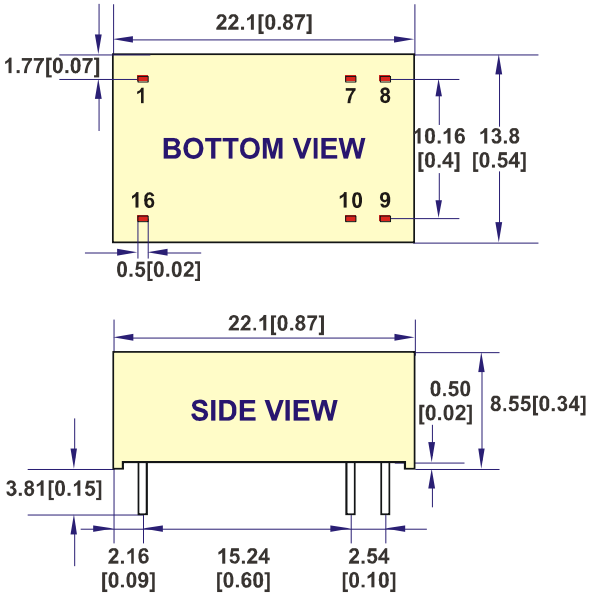
MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT[6] CURRENT(mA)		EFF (%)[7]	ISOLATION[8] (VDC)
				FULL LOAD	NO LOAD		
BWS-1205A3	9-18	5	600	313	35	79	1500
BWS-1212A3	9-18	12	250	309	35	80	1500
BWS-1215A3	9-18	15	200	309	35	81	1500
BWD-1205A3	9-18	+/-5	+/-300	317	35	79	1500
BWD-1212A3	9-18	+/-12	+/-125	313	35	80	1500
BWD-1215A3	9-18	+/-15	+/-100	313	35	80	1500
BWS-2405A3	18-36	5	600	154	20	81	1500
BWS-2412A3	18-36	12	250	154	20	81	1500
BWS-2415A3	18-36	15	200	153	20	82	1500
BWD-2405A3	18-36	+/-5	+/-300	158	20	79	1500
BWD-2412A3	18-36	+/-12	+/-125	156	20	80	1500
BWD-2415A3	18-36	+/-15	+/-100	156	20	80	1500
BWS-4805A3	36-75	5	600	77	10	81	1500
BWS-4812A3	36-75	12	250	77	10	81	1500
BWS-4815A3	36-75	15	200	76	10	82	1500
BWD-4805A3	36-75	+/-5	+/-300	79	10	79	1500
BWD-4812A3	36-75	+/-12	+/-125	78	10	80	1500
BWD-4815A3	36-75	+/-15	+/-100	78	10	80	1500

Note: Other input to output voltages may be available. Please contact factory.

[6] *NOMINAL INPUT VOLTAGE.*
[7] *NOMINAL INPUT VOLTAGE, FULL LOAD.*
[8] *1500VDC for 10 seconds.*

MECHANICAL DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS

PACKAGE



PIN	SINGLE	DUAL
1	-Vin	-Vin
7	NC	NC
8	NC	Com
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin

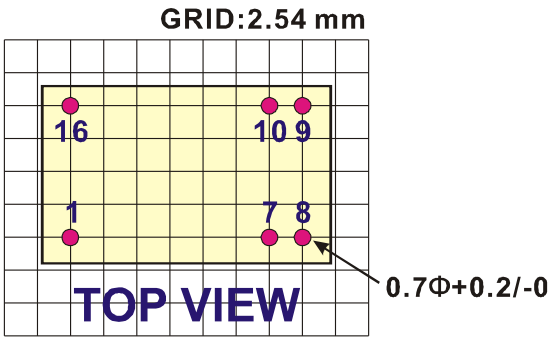
NOTE : All dimensions are in mm[inches]

1. Pin Size is 0.5x0.3mm[0.02x0.01"]

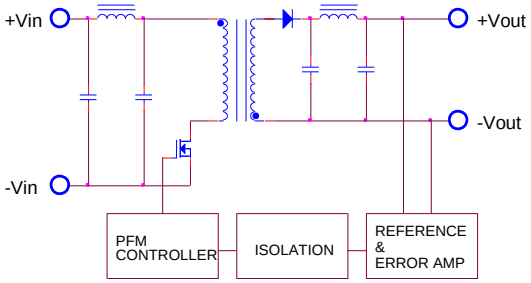
2. Pin is Tolerance .XX= ±0.05mm

3. Tolerance .X or .XX= ±0.5mm

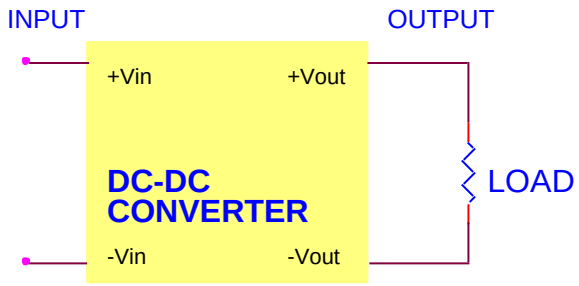
All dimensions are in mm [inches]



SIMPLIFIED SCHEMATIC



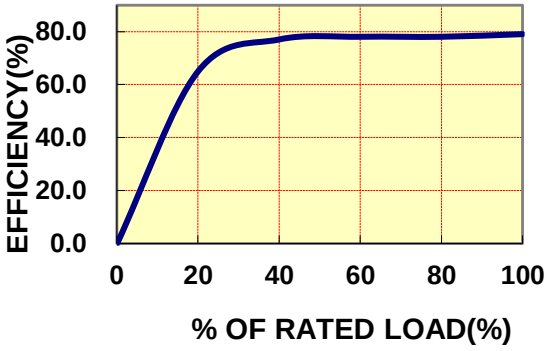
TYPICAL APPLICATIONS



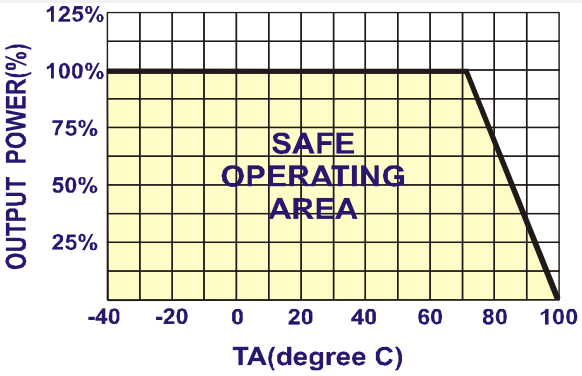
TYPICAL PERFORMANCE CURVES

Specifications typical at ta=25 °C,nominal input voltage , rated output current unless otherwise specified.

OUTPUT LOAD VS EFFICIENCY

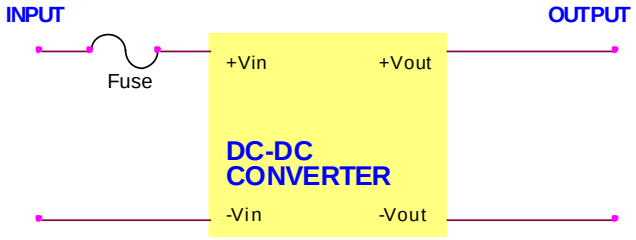


TEMPERATURE DERATING



INPUT FUSE SELECTION GUIDE

9V-18V INPUT VOLTAGE(VDC)	18V-36V INPUT VOLTAGE(VDC)	36V-75V INPUT VOLTAGE(VDC)
1000mA Slow-Blow Type	500mA Slow-Blow Type	200mA Slow-Blow Type



Note: Certain applications may require the installation of external fuse in front of the input.

BW-SERIES APPLICATION NOTES:

EXTERNAL CAPACITANCE REQUIREMENTS:

No external capacitance is required for operation of the BW-SERIES.

To meet the reflected ripple requirements of the converter, an input impedance of less than 0.5 ohm from DC to 100KHz is required.

External output capacitance is not required for operation, however it is recommended that 10uF tantalum and 0.1uF ceramic capacitance be selected for reduced system noise.

Additional output capacitance may be added for increased filtering, but should not exceed 220uF.

We Can Offer EMC-Filter According To EN55032 Class B.

Negative Outputs:

A negative output voltage may be obtained by connecting the +OUT to circuit ground and connecting –OUT as the negative output.

FOR MORE INFORMATION CALL:

Danube Enterprise Co., Ltd.

Tel: 886-7-3755165 Fax: 886-7-3755330 E-mail: danube@ms10.hinet.net

Home Page http://www.danube.com.tw