



# 5 WATT SINGLE & DUAL OUTPUT

Regulated, 24 Pin DIP Package  
DC/DC Converters  
2:1, 4:1 Input Voltage



## FEATURES

- **2:1, 4:1 Input Voltage Range**
- **5 Watts on D.I.L. Package**
- **Efficiency 80% Typ.**
- **Isolated Outputs**
- **Low Profile Package**
- **No Derating to 70°C**
- **5 Sided EMI Shield**

TWA5, TWB5 Series

## Specifications

All specifications are typical at nominal input, full load, and 25°C , unless otherwise noted.

### INPUT

Input Voltages.....	Voltage Range
12 Vdc.....	9 - 18 Vdc
24 Vdc.....	18 - 36 Vdc
48 Vdc.....	36 - 72 Vdc
24 Vdc.....	9 - 36 Vdc
48 Vdc.....	18 - 72 Vdc
Input Filter.....	Pi Network

### OUTPUT

Voltage Accuracy.....	±2% max.
Line Regulation.....	±0.2%
Load Regulation.....	±0.2% (Single Output)
	±1.0% (Dual Output)
Ripple Noise (20MHz Bw).....	50mV p-p max.
Temperature Coefficient (at FL).....	±0.02%/°C max.
Short Circuit Protection.....	Indefinite

### GENERAL

Efficiency.....	Up to 80% typical
Isolation Voltage.....	1500 Vdc min.
Isolation Resistance.....	1000MOhms
Switching Frequency.....	300KHz typical
Isolation Capacitance.....	300pF max.

### ENVIRONMENTAL

Operating Temperature Range.....	-25° to +71° C
	-40° to +85° C available.
	Use suffix "W" after Model Number. Price added 1-9 Qty.
Storage Temperature Range.....	-40° to +125° C
Cooling.....	Free Air Convection
EMI/RFI.....	Five-Sided Continuous Shield

### PHYSICAL

Case Material.....	Nickel Coated Copper w/ Non-Conductive Base
Dimensions.....	1.25" x 0.80" x 0.40"

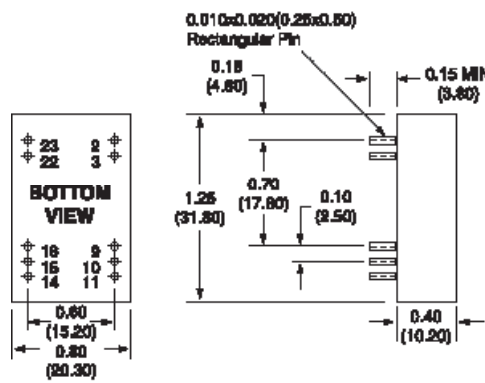
Selection Guide

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		Input Voltage Nominal (Range) (Vdc)	Output Voltage (Vdc)	Output Current (mA)	Efficiency %	Model Number	Package
2:1	SINGLE OUTPUT VOLTAGE	12 (9-18)	5	1000	73	TWA5-12S5	CB
			12	470	80	TWA5-12S12	CB
			15	400	80	TWA5-12S15	CB
		24 (18-36)	5	1000	74	TWA5-24S5	CB
			12	470	82	TWA5-24S12	CB
			15	400	82	TWA5-24S15	CB
		48 (36-72)	5	1000	78	TWA5-48S5	CB
			12	470	80	TWA5-48S12	CB
			15	400	80	TWA5-48S15	CB
2:1	DUAL VOLTAGE	12 (9-18)	±5	±500	74	TWA5-12-5	CB
			±12	±230	80	TWA5-12-12	CB
			±15	±190	80	TWA5-12-15	CB
		24 (18-36)	±5	±500	75	TWA5-24-5	CB
			±12	±230	82	TWA5-24-12	CB
			±15	±190	82	TWA5-24-15	CB
		48 (36-72)	±5	±500	78	TWA5-48-5	CB
			±12	±230	80	TWA5-48-12	CB
			±15	±190	80	TWA5-48-15	CB
4:1	SINGLE VOLTAGE	9-36	3.3	1000	74	TWB5-24S33	CB
			5	1000	75	TWB5-24S5	CB
			12	470	80	TWB5-24S12	CB
			15	400	80	TWB5-24S15	CB
		18-72	3.3	1000	73	TWB5-48S33	CB
			5	1000	77	TWB5-48S5	CB
			12	470	80	TWB5-48S12	CB
			15	400	79	TWB5-48S15	CB
4:1	DUAL VOLTAGE	9-36	±5	±500	78	TWB5-24-5	CB
			±12	±230	82	TWB5-24-12	CB
			±15	±190	80	TWB5-24-15	CB
		18-72	±5	±500	76	TWB5-48-5	CB
			±12	±230	80	TWB5-48-12	CB
			±15	±190	79	TWB5-48-15	CB

Mechanical Specifications

I/O Connections		
Pin	SINGLE	DUAL
2	-Vin	-Vin
3	-Vin	-Vin
9	NC	Common
10	NC	NC
11	NC	-Vout
14	+Vout	+Vout
15	NC	NC
16	-Vout	Common
22	+Vin	+Vin
23	+Vin	+Vin



All Dimensions are in inches (mm)

Options Available	Suffix	
-40°C to +85°C Operating Temp. Range	W	



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