

# Wide Input DC-DC Converters

## 10/15 Watts WU Series

## THE **XP**ERTS IN POWER



4:1 Input Range

Isolated Outputs

Efficiency to 84%

Overvoltage Protection

Input  $\pi$  Filter

Short Circuit Protected

Fully Regulated Outputs

### Specification

#### Input

- Input Voltage Range • 5 V (4.5-6.0 VDC)  
12 V (9-36 VDC)  
48 V (20-72 VDC)
- Input Filter •  $\pi$  Network

#### Output

- Output Power • 15 Watts (10 W for 5 & 3,3 V versions)
- Output Voltage • See Table
- Voltage Accuracy •  $\pm 1\%$  max
- Voltage Trim •  $\pm 5\%$  max on single output models
- Line Regulation •  $\pm 1\%$  max
- Load Regulation •  $\pm 1\%$  max single output models,  
 $\pm 2\%$  for dual & triple output models,  
for 75% load change
- Ripple & Noise • 1% of  $V_{out}$  max (20 MHz bandwidth)
- Temperature Coefficient •  $\pm 0.02\%/^{\circ}\text{C}$  max
- Short Circuit Protection • Continuous
- Remote On/Off • Standard on triple output models,  
optional on single & dual output models

#### General

- Switching Frequency • 100 kHz typical
- Efficiency • See Table
- Isolation • 500 V DC input to output  
(1000 M $\Omega$ /80 pF)
- Dimensions • 2.00" x 2.00" x 0.46"
- Weight • 80 g

#### Environmental

- Operating Temperature •  $-25^{\circ}\text{C}$  to  $+71^{\circ}\text{C}$
- Storage Temperature •  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$

# OUTPUT VOLTAGE & CURRENT RATINGS

WU

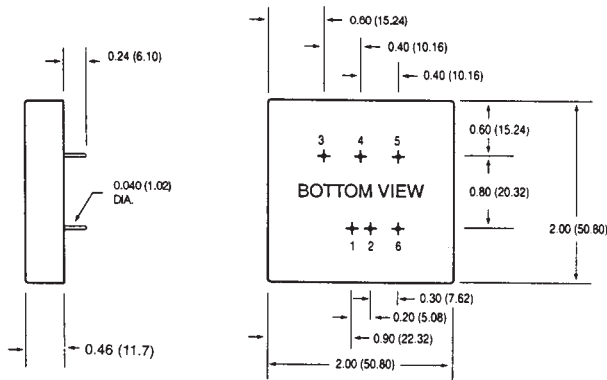
Input Voltage	Output Voltage	Output Current	Input Current <sup>(1)</sup>		Efficiency	Model Number
			No Load	Full Load		
4.5-6.0 VDC	±15.0 VDC	±333 mA	10 mA	2510 mA	79%	WU106
9-36 VDC	±5.0 VDC	±1500 mA	30 mA	1560 mA	80%	WU204
	±12.0 VDC	±625 mA	30 mA	1540 mA	81%	WU205
	±15.0 VDC	±500 mA	30 mA	1520 mA	82%	WU206
	5.0/±12.0 VDC	1500/±310 mA	20 mA	1576 mA	79%	WU207
	5.0/±5.0 VDC	1500/±250 mA	20 mA	1582 mA	79%	WU208
20-72 VDC	±5.0 VDC	±1500 mA	20 mA	760 mA	82%	WU304
	±12.0 VDC	±625 mA	20 mA	750 mA	83%	WU305
	±15.0 VDC	±500 mA	20 mA	745 mA	84%	WU306
	5.0/±12.0 VDC	1500/±310 mA	15 mA	778 mA	80%	WU307
	5.0/±15.0 VDC	1500/±250 mA	15 mA	781 mA	80%	WU308

**Notes**

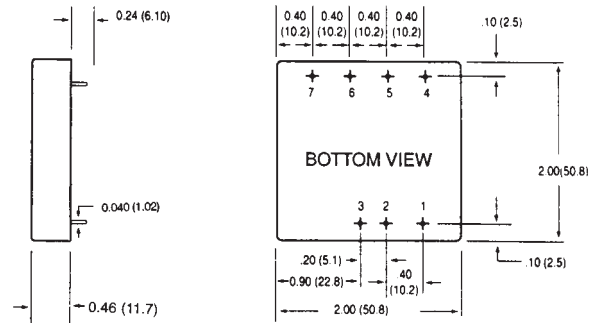
1. Input current is at nominal input voltage.

## Mechanical Details

### Single & Dual Output Models



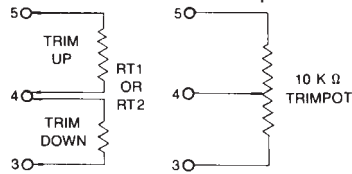
### Triple Output Models



Dimensions in inches (mm)

### EXTERNAL OUTPUT TRIMMING

Output may optionally be externally trimmed (±5%) with a fixed resistor or an external trimpot as shown.



### PIN CONNECTIONS

Pin	Single Output	Dual Output	Triple Output
1	+ Input	+ Input	Remote ON/OFF
2	- Input	- Input	- Input
3	+ Output	+ Output	+ Input
4	Trim	Common	- Output
5	- Output	- Output	Common
6	Remote ON/OFF	Remote ON/OFF	5 VDC Output
7	-	-	+ Output

**NOTES:**

1. Voltage accuracy on 3 VDC and triple outputs ±3% max. Single outputs can be trimmed ±5%.
2. Load regulation ±2% for dual and triple outputs.
3. Triple outputs require minimum of 10% load for rated performance.
4. Remote ON/OFF standard on triple output units, add suffix ' E ' to model number for option on single and dual output units.
5. Pin 6 is only fitted on single and dual output models with ' E ' suffix.

### REMOTE ON/OFF CONTROL

- ON	>5.5 VDC or Open Circuit
- OFF	<1.8 VDC
Shutdown Idle Current	10 mA
Input Resistance	(E <sub>in</sub> 0 VDC to 9 VDC) 100 kΩ
Remote ON/OFF Common	Referenced to -Input

