

# DC/DC Converters

**XPiQ inc.**

Intelligent Design Quality Product



**10/15 Watts  
WD Series**



- 2:1 Input Range
- 
- Isolated Outputs
- 
- Efficiency to 82%
- 
- 200 kHz Switching Frequency
- 
- Input  $\pi$  Filter
- 
- Fully Regulated Outputs
- 
- Six-sided Shield

## Specification

### Input

- Input Voltage Range • See Table
- Input Filter •  $\pi$  Network

### Output

- Voltage Accuracy •  $\pm 1\%$  max
- Line Regulation •  $\pm 0.5\%$  max
- (Full Input Range)
- Load Regulation •  $\pm 1\%$  max
- (1/4 Full Load)
- Ripple & Noise • 100mV p-p max
- (DC-20MHz)
- Temperature •  $\pm 0.05\%/^{\circ}\text{C}$  max
- Coefficient
- Short Circuit • Indefinite
- Protection

### General

- Switching Frequency • 200 kHz
- Efficiency • See Table
- Isolation • 500 VDC
- (Input-Output) (1000 Mohm/80pF)

### Environmental

- Operating Temperature •  $-25^{\circ}\text{C}$  to  $+71^{\circ}\text{C}$
- Storage Temperature •  $-40^{\circ}\text{C}$  to  $100^{\circ}\text{C}$

### Safety

- Safety Approvals • UL1950 for LU versions only



| OUTPUT VOLTAGE & CURRENT RATINGS |               |                |                |               |           | WD           |
|----------------------------------|---------------|----------------|----------------|---------------|-----------|--------------|
| Model                            | Input Voltage | Output Voltage | Output Current | Input Current |           | % Efficiency |
|                                  |               |                |                | No Load       | Full Load |              |
| WD501                            | 4.7-9.0VDC    | 5.0 VDC        | 1600 mA        | 15 mA         | 2130 mA   | 75           |
| WD502                            | 4.7-9.0VDC    | 12.0 VDC       | 666 mA         | 15 mA         | 2100 mA   | 76           |
| WD503                            | 4.7-9.0VDC    | 15.0 VDC       | 533 mA         | 15 mA         | 2100 mA   | 76           |
| WD504                            | 4.7-9.0VDC    | ±12.0 VDC      | ±333 mA        | 15 mA         | 2100 mA   | 76           |
| WD505                            | 4.7-9.0VDC    | ±15.0 VDC      | ±266 mA        | 15 mA         | 2100 mA   | 76           |
| WD506                            | 4.7-9.0VDC    | ±5.0 VDC       | ±800 mA        | 15 mA         | 2100 mA   | 76           |
| WD100                            | 9.0-18.0 VDC  | 3.3 VDC        | 3000 mA        | 20 mA         | 1056 mA   | 76           |
| WD101                            | 9.0-18.0 VDC  | 5.0 VDC        | 2000 mA        | 30 mA         | 1100 mA   | 76           |
| WD102                            | 9.0-18.0 VDC  | 12.0 VDC       | 830 mA         | 30 mA         | 1065 mA   | 78           |
| WD103                            | 9.0-18.0 VDC  | 15.0 VDC       | 666 mA         | 30 mA         | 1065 mA   | 78           |
| WD104                            | 9.0-18.0 VDC  | ±12.0 VDC      | ±415 mA        | 40 mA         | 1065 mA   | 78           |
| WD105                            | 9.0-18.0 VDC  | ±15.0 VDC      | ±333 mA        | 40 mA         | 1065 mA   | 78           |
| WD106                            | 9.0-18.0 VDC  | ±5.0 VDC       | ±1000 mA       | 40 mA         | 1065 mA   | 78           |
| WD200                            | 18.0-36.0 VDC | 3.3 VDC        | 3000 mA        | 20 mA         | 543 mA    | 76           |
| WD201                            | 18.0-36.0 VDC | 5.0 VDC        | 3000 mA        | 20 mA         | 800 mA    | 78           |
| WD202                            | 18.0-36.0 VDC | 12.0 VDC       | 1250 mA        | 20 mA         | 780 mA    | 80           |
| WD203                            | 18.0-36.0 VDC | 15.0 VDC       | 1000 mA        | 20 mA         | 780 mA    | 80           |
| WD204                            | 18.0-36.0 VDC | ±12.0 VDC      | ±625 mA        | 30 mA         | 780 mA    | 80           |
| WD205                            | 18.0-36.0 VDC | ±15.0 VDC      | ±500 mA        | 30 mA         | 780 mA    | 80           |
| WD206                            | 18.0-36.0 VDC | ±5.0 VDC       | ±1500 mA       | 30 mA         | 780 mA    | 80           |
| WD300                            | 36.0-72.0 VDC | 3.3 VDC        | 3000 mA        | 15 mA         | 272 mA    | 76           |
| WD301                            | 36.0-72.0 VDC | 5.0 VDC        | 3000 mA        | 10 mA         | 390 mA    | 80           |
| WD302                            | 36.0-72.0 VDC | 12.0 VDC       | 1250 mA        | 10 mA         | 380 mA    | 82           |
| WD303                            | 36.0-72.0 VDC | 15.0 VDC       | 1000 mA        | 10 mA         | 380 mA    | 82           |
| WD304                            | 36.0-72.0 VDC | ±12.0 VDC      | ±625 mA        | 15 mA         | 380 mA    | 82           |
| WD305                            | 36.0-72.0 VDC | ±15.0 VDC      | ±500 mA        | 15 mA         | 380 mA    | 82           |
| WD306                            | 36.0-72.0 VDC | ±5.0 VDC       | ±1500 mA       | 15 mA         | 380 mA    | 82           |

#### Notes

Nominal Input Voltage 5,12, 24 or 48 VDC.

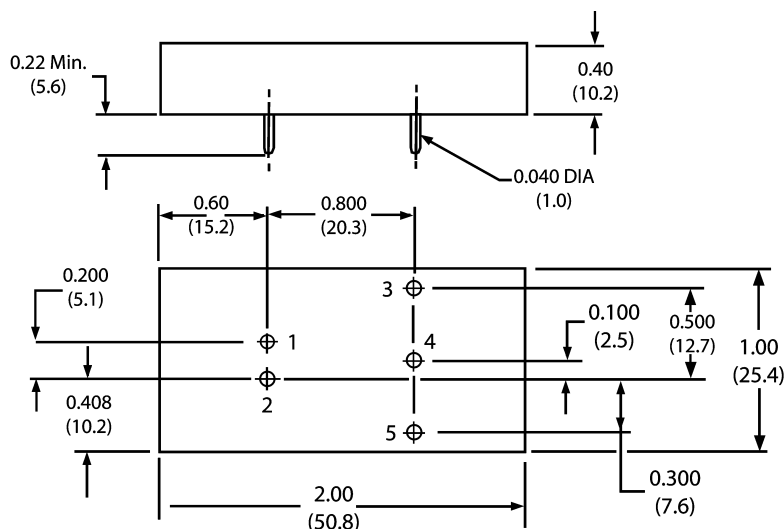
For optional 10 watt version:

Add Suffix "L" to WD2xx and WD3xx, except models WD200 and WD300.

UL1950 approvals available on 10 watt models only. Add suffix "LU" to models WD1xx, WD2xx or WD3xx.

Not available on WD5xx series.

#### Mechanical Details



| PIN | SINGLE OUTPUT | DUAL OUTPUT |
|-----|---------------|-------------|
| 1   | + INPUT       | + INPUT     |
| 2   | - INPUT       | - INPUT     |
| 3   | + OUTPUT      | + OUTPUT    |
| 4   | NO PIN        | COMMON      |
| 5   | - OUTPUT      | - OUTPUT    |

Dimensions in inches (mm)