



# 10 WATT SINGLE & DUAL OUTPUT

## Regulated, Wide Input (2:1 and 4:1) DC/DC Converters



### FEATURES

- UL & CE Approved
- 2:1 + 4:1 Input Voltage
- -40°C to +85°C  
Operating Temp. Range
- Low Profile Package  
(1.0" x 2.0" x 0.4")
- Input/Output Isolation
- Efficiency to 82% @ FL
- Short Circuit & Over-Voltage Protection
- 6-Sided Continuous Metal Shielding
- Epoxy Encapsulated

LWA10/LWB10 Series

### Specifications

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

#### INPUT

LWA Series (2:1).....	See Table
LWB Series (4:1).....	See Table
Input Filter.....	Pi Network

#### OUTPUT

Voltage Accuracy.....	±2%
Line Regulation .....	±1.0%
Load Regulation.....	±1.0% (Single), ±2.0% (Dual)
Ripple Noise (20 MHz BW)	
Single Output.....	50mVp-p max.
Dual Output.....	75mVp-p max.
Temperature Coefficient (at FL).....	±0.02%/°C
Transient Response, 25% load step.....	500µs max.

#### GENERAL

Efficiency.....	76-84%, see Table
Isolation Voltage.....	1500 Vdc min. *
Isolation Resistance.....	1000MOhms
Switching Frequency.....	200KHz typ.

#### ENVIRONMENTAL

Operating Temperature Range.....	-40 to +85°C (with derating)
Storage Temperature Range.....	-55 to +105°C
Cooling.....	Free Air Convection
EMI/RFI.....	Six-Sided Continuous Shield

#### PHYSICAL

Case Material.....	Nickel Coated Copper with Non-Conductive Base
Dimensions.....	1.00" x 2.00" x 0.40" (25.4 x 50.8 x 10.2 mm)

Selection Guide

(Continued)

		Input Voltage	Output Voltage	Output Current	Efficiency	Model Number	Case	
		Nominal (Range) (Vdc)	(Vdc)	(mA)	%			
<b>2:1 Input Range</b>	<b>SINGLE OUTPUT VOLTAGE</b>	12 (9-18)	3.3	2000	76	LWA10-12S33	P	
			5	2000	79	LWA10-12S5	P	
			12	830	82	LWA10-12S12	P	
			15	670	82	LWA10-12S15	P	
		24 (18-36)	3.3	2000	78	LWA10-24S33	P	
			5	2000	81	LWA10-24S5	P	
			12	830	84	LWA10-24S12	P	
			15	670	84	LWA10-24S15	P	
	48 (36-72)	3.3	2000	79	LWA10-48S33	P		
		5	2000	79	LWA10-48S5	P		
		12	830	82	LWA10-48S12	P		
		15	670	82	LWA10-48S15	P		
	<b>DUAL OUTPUTS</b>	12 (9-18)	±5	±1000	79	LWA10-12-5	P	
			±12	±416	81	LWA10-12-12	P	
			±15	±333	84	LWA10-12-15	P	
		24 (18-36)	±5	±1000	80	LWA10-24-5	P	
±12			±416	84	LWA10-24-12	P		
±15			±333	81	LWA10-24-15	P		
48 (36-72)		±5	±1000	79	LWA10-48-5	P		
		±12	±416	82	LWA10-48-12	P		
		±15	±333	82	LWA10-48-15	P		

		Input Voltage	Output Voltage	Output Current	Efficiency	Model Number	Case	
		Nominal (Range) (Vdc)	(Vdc)	(mA)	%			
<b>4:1 Input Range</b>	<b>SINGLE OUTPUT VOLTAGE</b>	12 (9-36)	5	2000	79	LWB10-24S5	P	
			12	830	82	LWB10-24S12	P	
			15	670	82	LWB10-24S15	P	
		48 (18-72)	5	2000	81	LWB10-48S5	P	
			12	830	84	LWB10-48S12	P	
			15	670	84	LWB10-48S15	P	
	<b>DUAL OUTPUTS</b>	12 (9-36)	±5	±1000	79	LWB10-24-5	P	
			±12	±416	82	LWB10-24-12	P	
			±15	±333	82	LWB10-24-15	P	
		48 (18-72)	±5	±1000	81	LWB10-48-5	P	
			±12	±416	84	LWB10-48-12	P	
			±15	±333	84	LWB10-48-15	P	

(See next page for diagram)

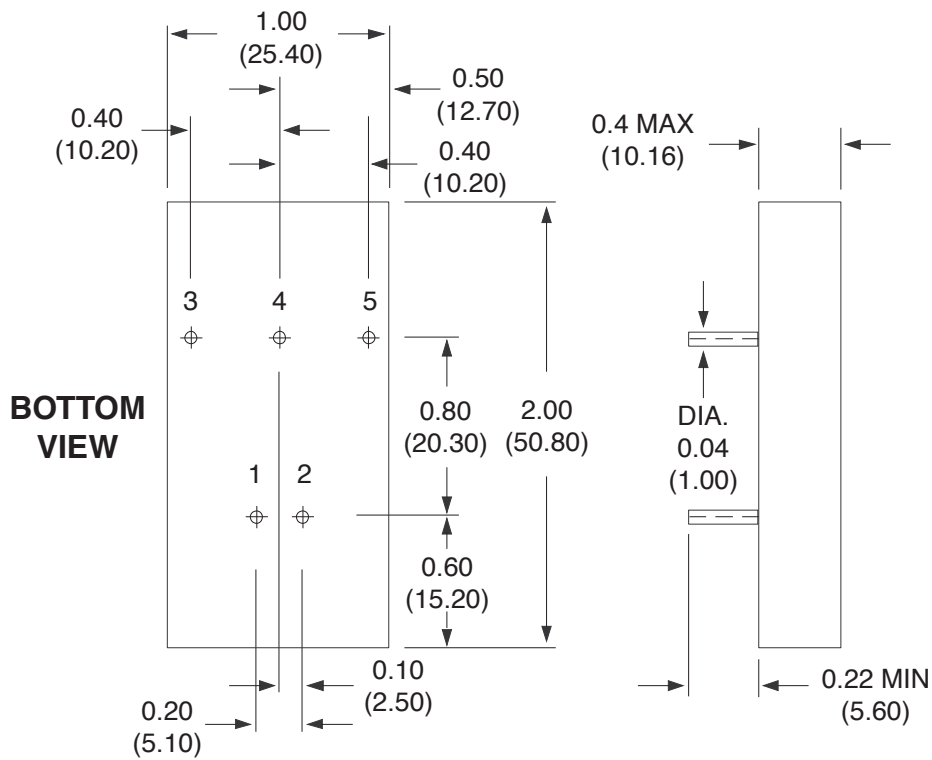


**POLYTRON DEVICES, Inc.**

P.O. Box 398, Paterson, New Jersey 07544 U.S.A.  
 Tel: (973)345-5885 Fax: (973)345-1264 • Email: sales@polytrondevices.com • www.polytrondevices.com

**Mechanical Specifications**

I/O Connections		
Pin	SINGLE	DUAL
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	No Pin	Common
5	-Vout	-Vout



**All Dimensions are in inches (mm)**



**POLYTRON DEVICES, Inc.**

P.O. Box 398, Paterson, New Jersey 07544 U.S.A.  
 Tel: (973)345-5885 Fax: (973)345-1264 • Email: sales@polytrondevices.com • www.polytrondevices.com