



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 Nominal (Range) (Vdc) | Output Voltage (Vdc) | Output Current (mA) | Efficiency % | Model Number | Case | |
|---------------------|------------|-------------------------------------|------------------------------|---------------------|--------------|--------------|------|-------------|
| | | 2:1 Input Range | SINGLE OUTPUT VOLTAGE | 12 (9-18) | 3.3 | 2000 | 76 | LWA10-12S33 |
| 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 | | |
| DUAL OUTPUTS | 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 Nominal (Range) (Vdc) | Output Voltage (Vdc) | Output Current (mA) | Efficiency % | Model Number | Case | |
|---------------------|------------|-------------------------------------|------------------------------|---------------------|--------------|--------------|------|------------|
| | | 4:1 Input Range | SINGLE OUTPUT VOLTAGE | 12 (9-36) | 5 | 2000 | 79 | LWB10-24S5 |
| 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 | |
| DUAL OUTPUTS | 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 | |

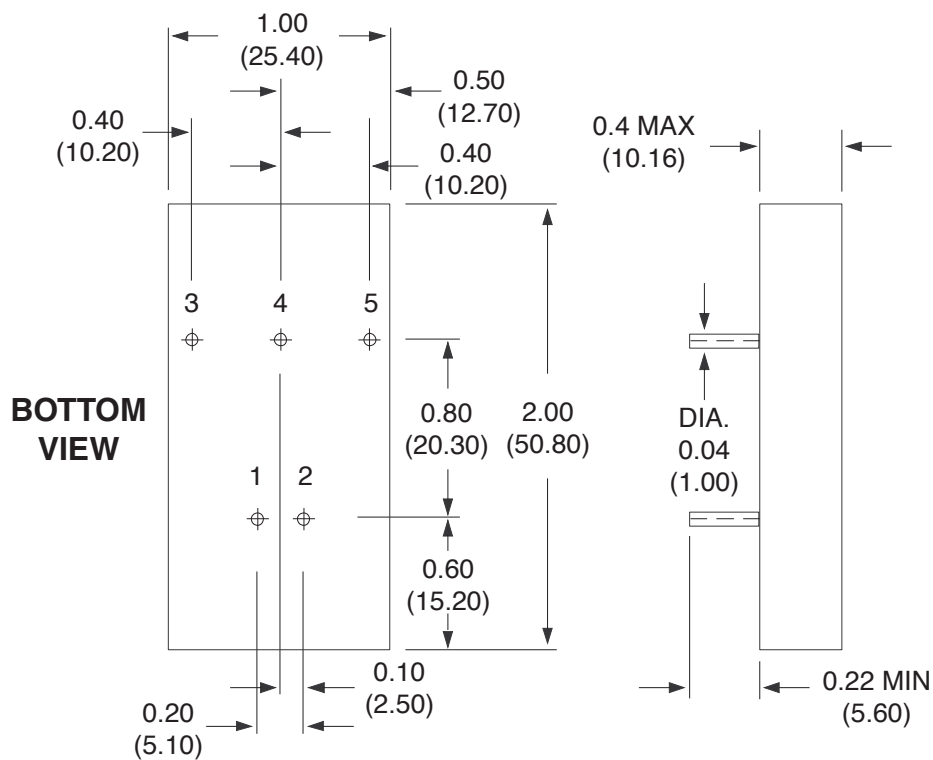
(See next page for diagram)



DABURN ELECTRONICS & CABLE

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)