

**25 TO 40 WATTS - CA SERIES**

Ultra Wide Input Voltage Range, Low Profile

**FEATURES**

- Ultra-Wide Input Voltage Range (4:1)
- LC Input Filter for Low Reflected Ripple Current
- Regulated Outputs
- Thermal Shutdown with Auto-Recovery
- Current Limiting Short Circuit Protection
- 500VDC min. I/O Isolation
- Industry Standard Package and Pin-Out
- Industrial temperature grade also available

**THE CA SERIES FROM WALL INDUSTRIES**

The CA Series of single, dual and triple output DC/DC converters performs over an ultra-wide input voltage range (4:1), providing indefinite short circuit and overvoltage protection. Without a heatsink, the CA Series' design technology allows for up to 40 watts output power from a 3.0 x 3.0 x 0.40" case. These current mode control forward converters are designed for improved transient response and reduced stress on switching components.



**SPECIFICATIONS: CA SERIES**

*All specifications apply @ +25 C ambient unless otherwise noted.*

**INPUT SPECIFICATIONS**

Input Voltages.....4.5-9,9-36, 18-75, 55-110VDC  
 Nominal Input.....5, 24, 48, 74VDC  
 Input Filter.....LC input filter  
 Remote On/Off Control.....Open Collector TTL

**OUTPUT SPECIFICATIONS**

Output Current.....see table  
 Voltage Tolerance.....±1% primary, ±2% auxiliary  
 Output Trim (external).....±10% (primary only)  
 Line Regulation.....0.5%  
 Load Regulation.....±1% singles (see note 5)  
 Ripple/Noise (20MHz BW).....75mV p-p  
 Transient Response.....<200u sec to within ±1% Vout

**GENERAL SPECIFICATIONS**

Efficiency.....80% typical  
 .....5VDC in.....75% typical  
 Isolation Voltage (input to output).....500VDC min.  
 Isolation Resistance (input to output).....500MOhms  
 Switching Frequency.....250kHz(typical)

**ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature (ambient).....-25 to 85°C (case)  
 Storage Temperature.....-55 to +100°C  
 Temperature Coefficient.....0.02% per °C max.  
 Humidity (non-condensing).....20% to 95% R.H.

**PHYSICAL SPECIFICATIONS**

Shielding.....Six-sided  
 Weight.....approx. 4.0 oz.  
 Case Material.....Black coated metal,  
 .....non-conductive base plate

*Due to advances in technology, specifications subject to change without notice.*

| Input Voltage (VDC) | Output Voltage (VDC) | Output Current (Amps) | Over Voltage Set-Point (VDC) | Model Number |
|---------------------|----------------------|-----------------------|------------------------------|--------------|
| 4.5-9               | 3.3                  | 7.58                  | 5.1                          | CA5S3.3-25   |
|                     | 5                    | 5.0                   | 6.2                          | CA5S5-25     |
|                     | 12                   | 2.0                   | 15                           | CA5S12-25    |
|                     | 15                   | 1.6                   | 18                           | CA5S15-25    |
|                     | 18                   | 1.38                  | 21                           | CA5S18-25    |
|                     | ±5                   | 2.5                   | 6.2                          | CA5D5-25     |
|                     | ±12                  | 1.04                  | 15                           | CA5D12-25    |
|                     | ±15                  | .83                   | 18                           | CA5D15-25    |
| 9-36                | 3.3                  | 7.58                  | 5.1                          | CA24S3.3-25  |
|                     | 5                    | 5.0                   | 6.2                          | CA24S5-25    |
|                     |                      | 8.0                   | 6.2                          | CA24S5-40    |
|                     | 12                   | 2.0                   | 15                           | CA24S12-25   |
|                     |                      | 3.3                   | 15                           | CA24S12-40   |
|                     | 15                   | 1.6                   | 18                           | CA24S15-25   |
|                     |                      | 2.66                  | 18                           | CA24S15-40   |
|                     | 18                   | 1.38                  | 21                           | CA24S18-25   |
|                     |                      | 2.22                  | 21                           | CA24S18-40   |
|                     | ±12                  | 1.25                  | 15                           | CA24D12-30   |
|                     |                      | 1.66                  | 15                           | CA24D12-40   |
|                     | ±15                  | 1.0                   | 18                           | CA24D15-30   |
|                     |                      | 1.33                  | 18                           | CA24D15-40   |
|                     | +5/±12               | 4.0/±0.42             | 6.2/15                       | CA24T12-30   |
|                     | +5/±15               | 4.0/±0.33             | 6.2/18                       | CA24T15-30   |
| 18-75               | 3.3                  | 7.58                  | 5.1                          | CA48S3.3-25  |
|                     | 5                    | 5.0                   | 6.2                          | CA48S5-25    |
|                     |                      | 8.0                   | 6.2                          | CA48S5-40    |
|                     | 12                   | 2.0                   | 15                           | CA48S12-25   |
|                     |                      | 3.3                   | 15                           | CA48S12-40   |
|                     | 15                   | 1.6                   | 18                           | CA48S15-25   |
|                     |                      | 2.66                  | 18                           | CA48S15-40   |
|                     | 18                   | 1.38                  | 21                           | CA48S18-25   |
|                     |                      | 2.22                  | 21                           | CA48S18-40   |
|                     | ±12                  | 1.25                  | 15                           | CA48D12-30   |
|                     |                      | 1.66                  | 15                           | CA48D12-40   |
|                     | ±15                  | 1.0                   | 18                           | CA48D15-30   |
|                     |                      | 1.33                  | 18                           | CA48D15-40   |
|                     | +5/±12               | 4.0/±0.42             | 6.2/15                       | CA48T12-30   |
|                     | +5/±15               | 4.0/±0.33             | 6.2/18                       | CA48T15-30   |
| 55-110              | 3.3                  | 7.58                  | 5.1                          | CA74S3.3-25  |
|                     | 5                    | 5.0                   | 6.2                          | CA74S5-25    |
|                     |                      | 8.0                   | 6.2                          | CA74S5-40    |
|                     | 12                   | 2.0                   | 15                           | CA74S12-25   |
|                     |                      | 3.3                   | 15                           | CA74S12-40   |
|                     | 15                   | 1.6                   | 18                           | CA74S15-25   |
|                     |                      | 2.66                  | 18                           | CA74S15-40   |
|                     | 18                   | 1.38                  | 21                           | CA74S18-25   |
|                     |                      | 2.22                  | 21                           | CA74S18-40   |
|                     | ±12                  | 1.25                  | 15                           | CA74D12-30   |
|                     |                      | 1.66                  | 15                           | CA74D12-40   |
|                     | ±15                  | 1.0                   | 18                           | CA74D15-30   |
|                     |                      | 1.33                  | 18                           | CA74D15-40   |
|                     | +5/±12               | 4.0/±0.42             | 6.2/15                       | CA74T12-30   |
|                     | +5/±15               | 4.0/±0.33             | 6.2/18                       | CA74T15-30   |

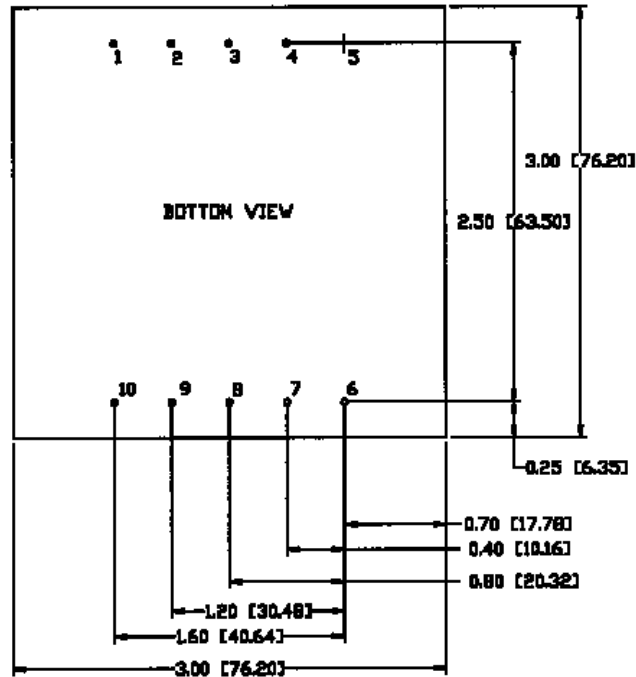
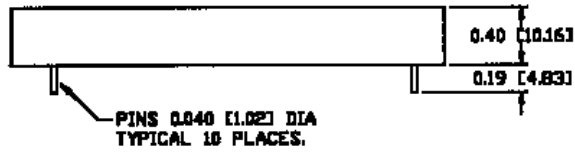
### PIN CONNECTIONS

|    | Singles | Duals  | Triples    | Alternate Pin-Out A |
|----|---------|--------|------------|---------------------|
| 1  | Remote  | Remote | Remote     |                     |
| 2  | Case    | Case   | Case       |                     |
| 3  | + Vin   | +Vin   | +Vin       | -Vin                |
| 4  | - Vin   | -Vin   | -Vin       | +Vin                |
| 5  | No pin  | No pin | No pin     | No pin              |
| 6  | N/C     | -Vout  | Aux. -Vout |                     |
| 7  | N/C     | Common | Aux. +Vout |                     |
| 8  | Common  | Common | Common     |                     |
| 9  | +Vout   | +Vout  | +5Vout     |                     |
| 10 | Trim    | Trim   | Trim       |                     |

### NOTES:

- All case and pin to case dimensions reference only unless otherwise noted.
- PC pins 0.04" dia x 0.18" long min.; typical nine places.
- Pin to pin tolerance ±0.01". Pin dimension tolerance ±0.005"
- Duals: 25 - 100% load: ±1% and 0-100% load: ±5%. Triples: 10% min load required on primary output, ±1%.
- Significant capacitive load may inhibit start-up and operation, consult factory.
- For Industrial Temp add suffix "I".

HEADER PLATE PERTRUDES  
0.008 TYPICAL FOUR SIDES.



DERATING CURVE

