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:

1. All case and pin to case dimensions reference only unless otherwise noted.

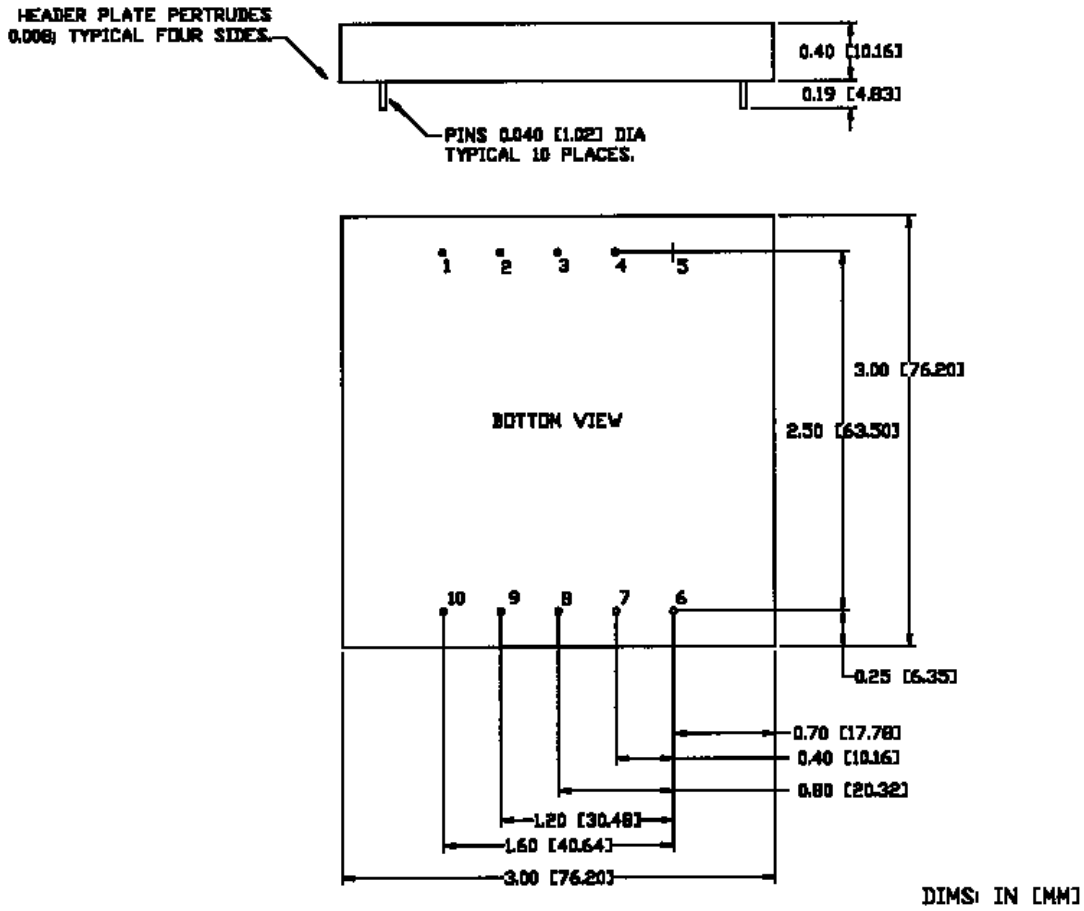
2. PC pins 0.04” dia x 0.18” long min.; typical nine places.

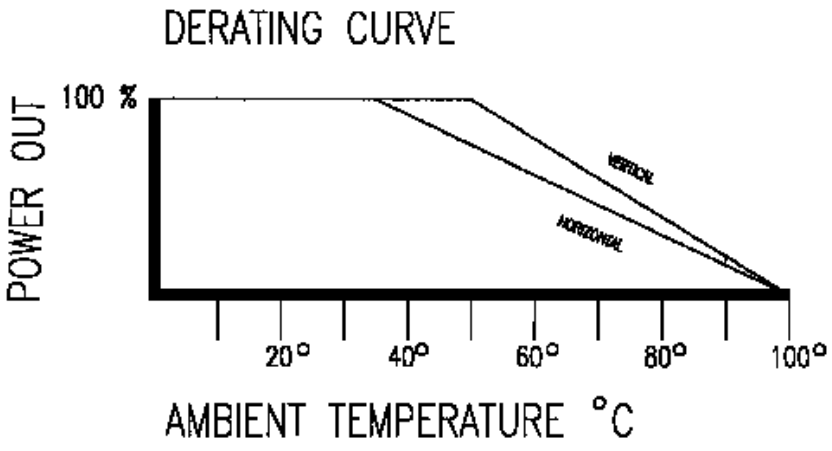
3. Pin to pin tolerance ±0.01”. Pin dimension tolerance ±0.005”

4. Duals: 25 - 100% load: ±1% and 0-100% load: ±5%. Triples: 10% min load required on primary output, ±1%.

5. Significant capacitive load may inhibit start-up and operation, consult factory.

6. For Industrial Temp add suffix “I”.


HEADER PLATE PERTRUDES
0.008) TYPICAL FOUR SIDES.
0.40 [10.16]
0.19 [4.83]
PINS 0.040 [1.02] DIA
TYPICAL 10 PLACES.
1
2
3
4
5
BOTTOM VIEW
3.00 [76.20]
2.50 [63.50]
10
9
8
7
6
0.25 [6.35]
0.70 [17.78]
0.40 [10.16]
0.80 [20.32]
1.20 [30.48]
1.60 [40.64]
3.00 [76.20]
DIMS: IN [MM]


DERATING CURVE
POWER OUT
100 %
VERTICAL
HORIZONTAL
20°
40°
60°
80°
100°
AMBIENT TEMPERATURE °C