

CD Series Dual Output DC/DC Converters

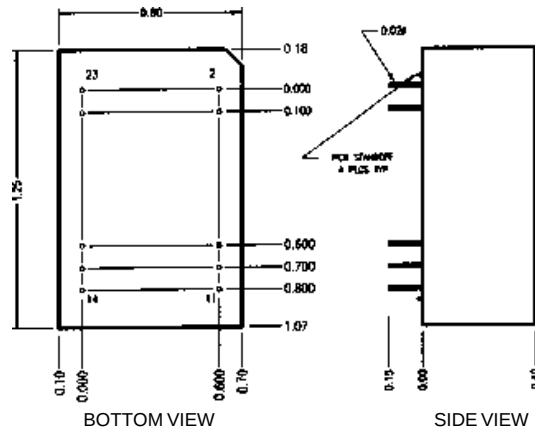
Model 48D5.100CD Specifications

Model		48D5.100CD	
Features		Wide Input Range	
Power		1 Watt	
Input Parameters			
Source Voltage Range, Vs	min	30.0 VDC	
	typ	49.0 VDC	
	max	60.0 VDC	
Switching Frequency	typ	100 kHz	
Output Parameters		+5 V	-5 V
Output Voltage Accuracy at Rated Load	min	5.000 VDC	5.000 VDC
	typ	5.200 VDC	5.400 VDC
	max	5.500 VDC	5.600 VDC
Rated Load	min	25 mA	13 mA
	max	100 mA	50 mA
Load Regulation Min to Max Load	typ	0.2%	
	max	1.0%	
Line Regulation	typ	0.2%	
	max	1.0%	
General Specifications			
Isolation			
Isolation Voltage Input to Output 10μA Leakage	min	1500 VAC	
	typ	10 pF	
Environmental			
Case Operating Temperature Range No Derating	min	-40°C	
	max	90°C	
Storage Temperature Range	min	-55°C	
	max	105°C	

Model 24D15.100CD Specifications

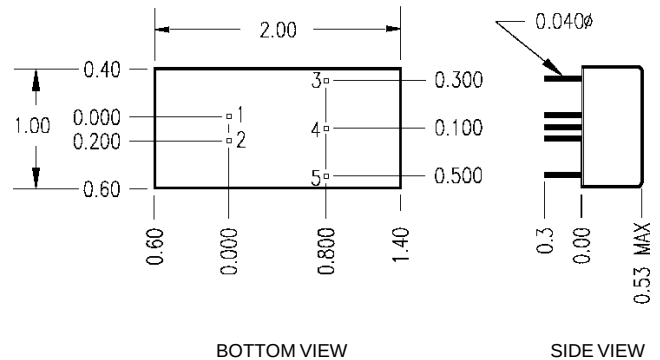
Model		24D15.100CD	
Features		Unregulated Converter	
Power		1.65 Watts	
Input Parameters			
Voltage Range	min typ max	16.0 VDC 24.0 VDC 28.0 VDC	
Switching Frequency	typ	75 kHz	
Output Parameters		+15 V	-15 V
Voltage Accuracy, Max Load	min typ max	14.40 VDC 15.00 VDC 15.60 VDC	15.00 VDC 15.80 VDC 16.60 VDC
Rated Load	min max	0 mA 100 mA	0 mA 10 mA
Load Regulation: +15V@ 50-100mA; -15V@ FL -15V@ 5-10mA; +15V@ FL	typ	5.0%	1.0%
Line Regulation Vin = 16 to 28 VDC	typ max	1.1% / % Vin 1.25% / % Vin	
Noise, 0 to 20 MHz bw	typ max	50 mV p-p 100 mV p-p	
General Specifications			
Isolation			
Isolation Voltage Input to Output	min	700 VDC	
Input to Output Capacitance	typ	40 pF	
Environmental			
Case Operating Temperature Range No Derating	min max	-25°C 80°C	
Storage Temperature Range	min max	-40°C 100°C	

Model 48D5.100CD Case Dimension



PIN	FUNCTION
2	-INPUT
3	-INPUT
9	CMN
10	N/C
11	-OUTPUT
14	-OUTPUT
15	N/C
16	CMN
22	+INPUT
23	+INPUT

Model 24D15.100CD Case Dimension



Mechanical tolerances unless otherwise noted:
 XX.XX = ± 0.020
 XX.XXX = ± 0.005

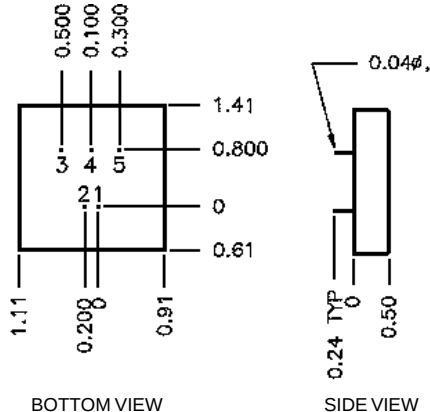
PIN	FUNCTION
1	+INPUT
2	INPUT
3	+OUTPUT
4	CMN
5	-OUTPUT

CD Series Dual Output DC/DC Converters

Model 48D5.540CD Specifications

Model		48D5.540CD	
Features		High Source Impedance	
Power		2.8 Watts	
Input Parameters			
Source Voltage Range, Vs	min	48.0 VDC	
	typ	49.5 VDC	
	max	51.0 VDC	
Source Impedance Range, RS	min	50 ohms	
	max	136 ohms	
Switching Frequency	typ	50 kHz	
Output Parameters		+5 V	-5 V
Output Voltage	min	4.950 VDC	4.850 VDC
	typ	5.000 VDC	5.000 VDC
	max	5.050 VDC	5.150 VDC
Rated Load	min	200 mA	10 mA
	max	540 mA	20 mA
Load Regulation	typ	1.0%	1.0%
Min to Max Load	max	4.0%	2.0%
Line Regulation	typ	0.3%	
Rs = Min to Max Ohms	max	1.0%	
Vs = Min to Max Volts	typ	0.1%	
	max	0.5%	
Noise, 0 to 20 MHz bw	typ	20 mV p-p	
	max	75 mV p-p	
General Specifications			
Isolation			
Isolation Voltage	min	500 VDC	
Input to Output 10µA Leakage			
Input to Output Capacitance	typ	500 pF	
Environmental			
Case Operating Temperature Range No Derating	min	-20°C	
	max	80°C	
Storage Temperature Range	min	-55°C	
	max	80°C	

Model 48D5.540CD Case Dimension



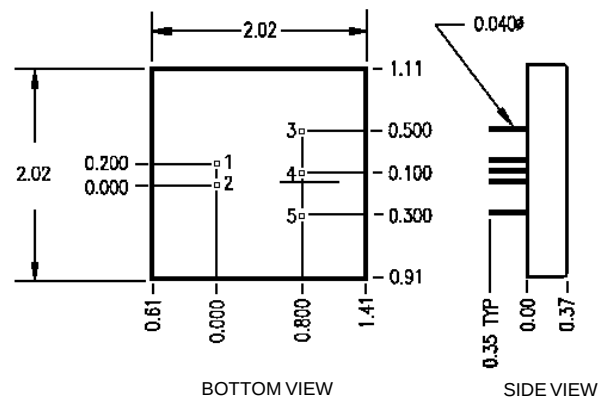
Mechanical tolerances unless otherwise noted:
X.XX = ±0.010 inches
X.XXX = ±0.005 inches

PIN	FUNCTION
1	+INPUT
2	+INPUT
3	+5 OUT
4	OUT CMN
5	-5 OUT

Model 48D15.150CD Specifications

Model		48D15.150CD	
Features		Linear Regulated Output	
Power		4.7 Watts	
Input Parameters			
Input Voltage Range	min	43.0 VDC	
	typ	48.0 VDC	
	max	56.0 VDC	
Efficiency	typ	62%	
Switching Frequency	typ	85 kHz	
Output Parameters			
Output Voltage, 100% Load	min	±15.522 VDC	
	typ	±15.600 VDC	
	max	±15.678 VDC	
Rated Load	min	±10 mA	
	max	±150 mA	
Load Regulation 10 mA to 150 mA Max Load	typ	0.05%	
	max	0.2%	
Line Regulation Vin = Min to Max	typ	0.05%	
	max	0.2%	
Noise, 0 to 20 MHz bw	typ	40 mV p-p	
General Specifications			
Isolation			
Isolation Voltage Input to Output	min	500 VDC	
	typ	75 pF	
Input to Output Capacitance	typ	75 pF	
Environmental			
Case Operating Temperature Range No Derating	min	-25°C	
	max	80°C	
Storage Temperature Range	min	-55°C	
	max	105°C	

Model 48D15.150CD Case Dimension



PIN	FUNCTION
1	+INPUT
2	-INPUT
3	+OUTPUT
4	CMN
5	-OUTPUT

Mechanical tolerances unless otherwise noted:
X.XX = ±0.040
X.XXX = ±0.010
Seal around terminals is not hermetic.
Do not immerse units in any liquid.

CD Series Dual Output DC/DC Converters

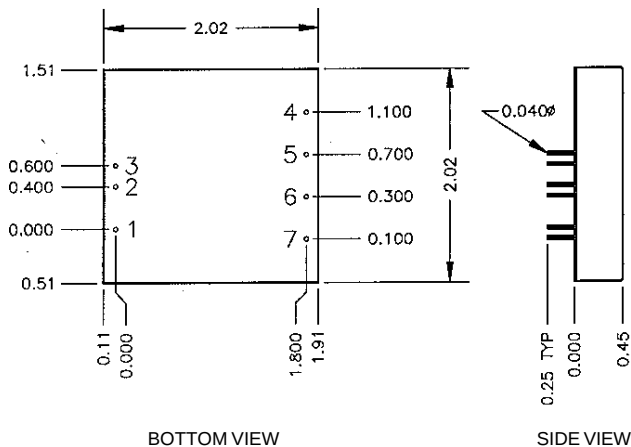
Model 12D5.1000CD Specifications

Model		12D5.1000CD	
Features		Wide Input Range	
Power		6.25 Watts	
Input Parameters			
Voltage Range	min	9.0 VDC	
	typ	12.0 VDC	
	max	36.0 VDC	
Efficiency	typ	76%	
Switching Frequency	typ	185 kHz	
Output Parameters		+5 V	-5 V
Voltage Accuracy	min	4.900 VDC	4.900 VDC
	typ	5.000 VDC	5.000 VDC
	max	5.100 VDC	5.100 VDC
Rated Load	min	100 mA	30 mA
	max	1000 mA	250 mA
Cross Regulation	typ	2.7%	
Min to Max Load	max	3.5%	
Line Regulation Vin = Min to Max VDC	typ	0.1%	
	max	0.5%	
Noise, 0 to 20 MHz bw	typ	30 mV p-p	35 mV p-p
	max	80 mV p-p	80 mV p-p
General Specifications			
Isolation			
Input to Output	min	700 VDC	
Input to Output Capacitance	typ	500 pF	
Environmental			
Case Operating Temperature Range No Derating	min	-40°C	
	max	85°C	
Storage Temperature Range	min	-55°C	
	max	105°C	

Model 15D72.48CD Specifications

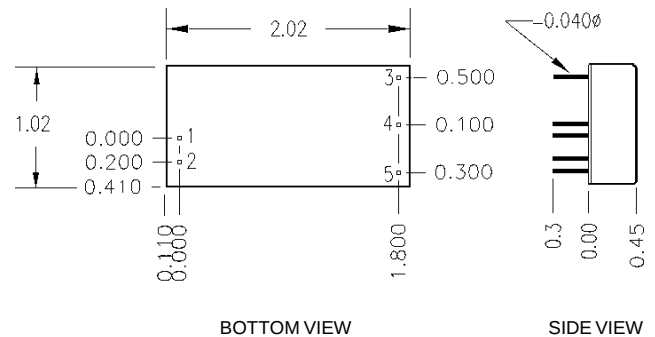
Model		15D72.48CD	
Features		Phone Ringer Supply	
Power		7.2 Watts	
Input Parameters			
Voltage Range	min typ max	14.0 VDC 15.0 VDC 16.0 VDC	
Efficiency	typ	84%	
Switching Frequency	typ	140 kHz	
Output Parameters		+72 V	-48 V
Voltage Accuracy, No Load	min typ max	70.00 VDC 72.00 VDC 74.00 VDC	46.00 VDC 48.00 VDC 50.00 VDC
Rated Load	min typ	0 mA 60 mA	0 mA 60 mA
Load Regulation Load = No Load - Surge Load	typ max	7% 10%	8% 10%
Line Regulation Vin = Min to Max VDC	typ	1.1% / %Vin	1.1% / %Vin
Noise, 0 to 20 MHz bw	typ	60 mV p-p	40 mV p-p
General Specifications			
Environmental			
Case Operating Temperature Range No Derating	min max	-40°C 90°C	
Storage Temperature Range	min max	-55°C 105°C	

Model 12D5.1000CD Case Dimension



PIN	FUNCTION
1	ON/OFF
2	-INPUT
3	+INPUT
4	+OUTPUT
5	CMN
6	-OUTPUT
7	TRIM

Model 15D72.48CD Case Dimension



PIN	FUNCTION
1	+INPUT
2	-INPUT
3	+72V
4	CMN
5	-48V

Mechanical tolerances unless otherwise noted:
 X.XX = ±0.020
 X.XXX = ±0.005

CD Series Dual Output DC/DC Converters

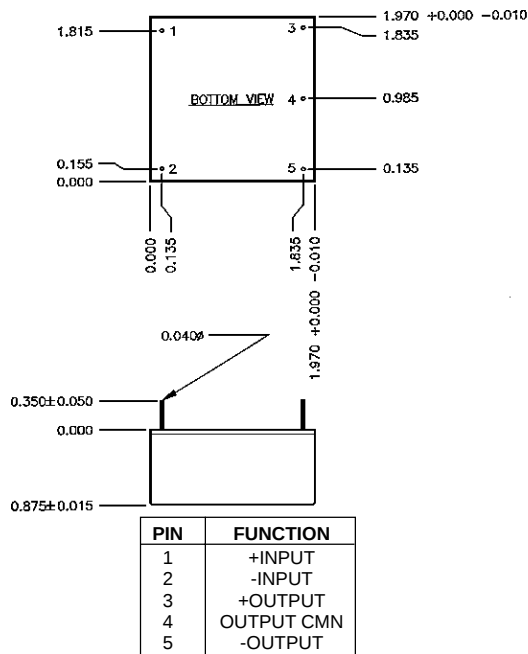
Model 24D15.250CD Specifications

Model			24D15.250CD
Features		Linear Regulated Output	
Power		7.5 Watts	
Input Parameters			
Input Voltage Range	min	21.60 VDC	
	typ	24.00 VDC	
	max	26.40 VDC	
Switching Frequency	typ	90 kHz	
Output Parameters			
Output Voltage, 100% Load	min	±14.900 VDC	
	typ	±15.000 VDC	
	max	±15.100 VDC	
Rated Load	min	±0 mA	
	max	±250 mA	
Load Regulation IL = FL to NL	typ	0.02%	
	max	0.07%	
Line Regulation Vin = LL to HL	typ	0.02%	
	max	0.10%	
Noise	typ	10 mV p-p	
	max	20 mV p-p	
General Specifications			
Isolation			
Isolation Voltage Input to Output	min	500 VDC	
	typ	100 pF	
Environmental			
Case Operating Temperature Range No Derating	min	-25°C	
	max	80°C	
Storage Temperature Range	min	-40°C	
	max	85°C	

Model 24D5.35CD Specifications

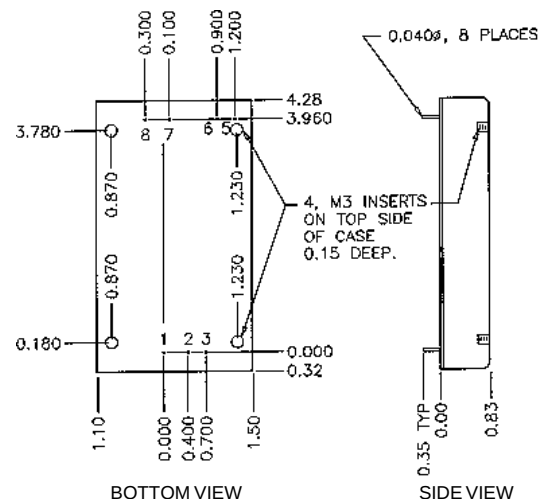
Model		24D5.35CD	
Features		Two Seperate Regulators	
Power		75.5 Watts	
Input Parameters			
Voltage Range	min typ max	18.0 VDC 24.0 VDC 36.0 VDC	
Efficiency	typ	87%	
Switching Frequency	typ	120 kHz	
Output Parameters		+5 V	+35 V
Voltage Accuracy	min typ max	4.950 VDC 5.000 VDC 5.050 VDC	34.650 VDC 35.000 VDC 35.350 VDC
Rated Load	min max	100 mA 1100 mA	500 mA 2000 mA
Load Regulation	typ	0.1%	0.1%
Min to Max Load	max	0.2%	0.3%
Line Regulation	typ	0.1%	0.2%
Vin = Min to Max VDC	max	0.5%	0.5%
Noise, 0 to 20 MHz bw	typ max	20 mV p-p 75 mV p-p	25 mV p-p 85 mV p-p
General Specifications			
Environmental			
Case Operating Temperature Range No Derating	min max	-25°C 85°C	
Storage Temperature Range	min max	-55°C 105°C	

Model 24D15.250CD Case Dimension



NOTE: Tolerances from pin to pin is ±0.05
Tolerances Pin to case edge is ±0.010

Model 24D5.35CD Case Dimension



Mechanical tolerances unless otherwise noted.
All dimensions in inches.
X.XX = ±0.020
X.XXX = ±0.005
Do not immerse unit in any liquid.