

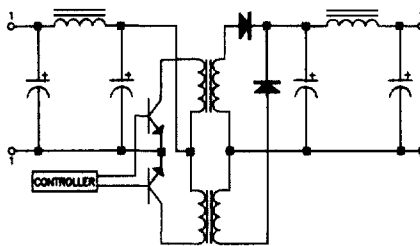


STANDARD DC/DC CONVERTERS WITH SINGLE OR DUAL UNREGULATED OUTPUTS. ALL MODELS FEATURE 24-PIN DIP COMPATIBLE CONFIGURATION. AN INPUT Π (Pi) FILTER IS STANDARD AND IS USED TO REDUCE REFLECTED RIPPLE CURRENT. ALL MODELS FEATURE A PHENOLIC UL94V0- RATED CASE.



DIMENSIONS:
1.25" x 0.80" x 0.40"
(31.75) x (20.32) x (10.16)mm

BLOCK DIAGRAM



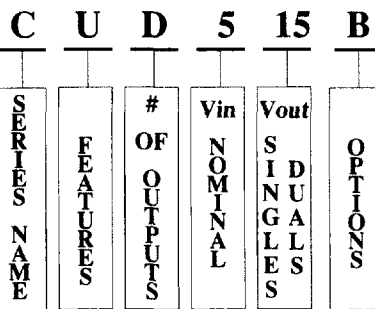
FEATURES

- Industry Standard Pin Out
- Up to 78% Efficiency
- 500 VDC I/O Isolation
- Input Π (Pi) Filter

APPLICATIONS

- A/D-D/A Converters
- RS-232 Drivers
- Industrial Control Circuit
- Operational Amplifiers
- Bias Power For RAMs, ROMs, PROMs

PART NUMBER SELECTION GUIDE



Features
• Unregulated

of Outputs
S = SINGLE
D = DUAL

Input Voltage Range (VDC)
5 = 4.65 to 5.50
12 = 10.80 to 13.20

Output Voltage (VDC)
Single Output:
05 = 5V @ 220mA
09 = 9V @ 150mA
12 = 12V @ 125mA
15 = 15V @ 100mA
Dual Output:
12 = $\pm 12V$ @ $\pm 62mA$
15 = $\pm 15V$ @ $\pm 50mA$
For Other Output Voltages Please Consult Factory

Options
B = Alternate Pinout or Height
S (#) = Modification Number
I = Industrial Temperature Range (-40°C to +85°C)



PARAMETER	MIN	TYP	MAX	UNITS	CONDITIONS	NOTES:	
GENERAL:							
Switching Frequency	36	40	44	KHz		1. Noderating required up to a maximum case temperature of 85°C. Internal Power Dissipation = $P_{out} * (1 - Eff) / Eff$.	
Isolation Voltage				VDC			
Input to Output	500			VDC			
Input to Case	500			VDC			
Output to Case	500			VDC			
Isolation Resistance				Ohms			
Input to Output	10 ⁹						
Isolation Capacitance				pF			
Input to Output	80						
Short Circuit Protection					Note 3		
ENVIRONMENTAL:							
Operating Temperature						3. Continuous Short Circuit Protection is provided. For dual output units the short circuit current on each individual output is equivalent to the short circuit current for a single output unit.	
Commercial Grade	-25		85	°C	Note 1		
Storage Temperature	-40		125	°C	Ambient		
Operating Humidity			95	%	Non-Condensing		
Storage Humidity			95	%	Non-Condensing		
INPUT:							
Input Voltage						4. Long term continuous operation in this mode is not recommended. Converter will auto-restart once short has been removed.	
5 Vin	4.65	5.00	5.50	VDC			
12 Vin	10.90	12.00	13.20	VDC			
Input Current							
5 Vin			0.33	Amps	Note 2		
12 Vin			0.13	Amps	Note 2		
Input Ripple Current			20%	I _{in} max			
Reverse Input Current			100%	I _{in} max			
No Load Input Power			0.50	W			
OUTPUT:							
Singles:							
Voltage Accuracy			±4.00%	V _{out}	Full Load		
Load Regulation			±10.0%	V _{out}	20% to 100%		
Line Regulation			±1.50%	V _{out}	LL to HL		
Duals:							
Voltage Accuracy							
+V _{out}			±4.00%	V _{out}	Full Load		
-V _{out}			±4.00%	V _{out}	Full Load		
Load Regulation							
+V _{out}			±10.0%	V _{out}	20% to 100%		
-V _{out}			±10.0%	V _{out}	20% to 100%		
Line Regulation			±1.50%	V _{out}	LL to HL		
Temp. Coefficient			0.02%	/°C			
Voltage Stability			0.05%	V _{out}			
Ripple and Noise			1.00%	V _{out}	p-p, 20 MHz BW		

- All specifications typical at +25°C Nominal Line and Full Load unless otherwise noted.
- Specifications subject to change without notice.





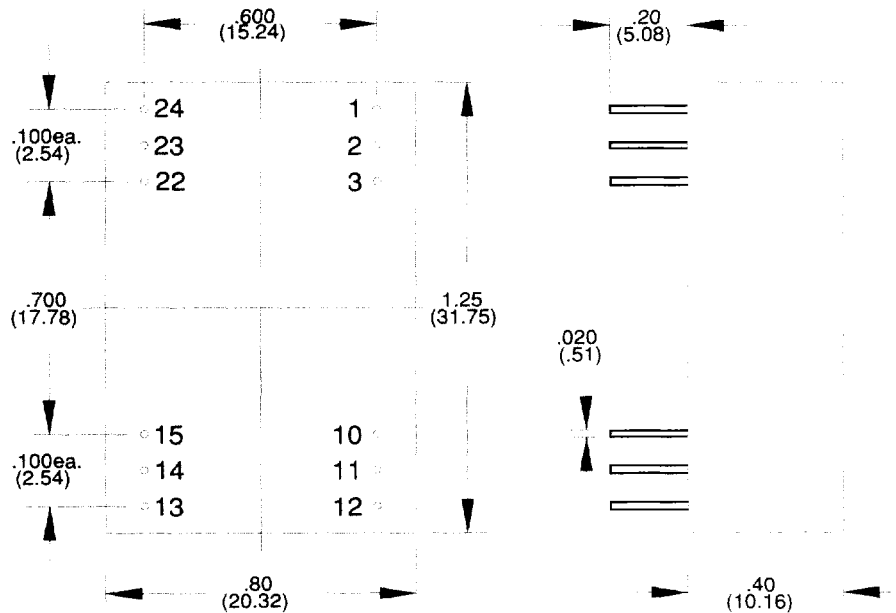
CUS & CUD Series of 1 Watt DC-DC Converters



PIN #	SINGLE	DUAL	DUAL "B"
1 & 24	+Vin	+Vin / -Vin	+Vin
2 & 23	No Connect	+Vin / -Vin	-Vout
3 & 22	No Connect	+Vin / -Vin	Com
4 & 21	No Pin	No Pin	No Pin
5 & 20	No Pin	No Pin	No Pin
6 & 19	No Pin	No Pin	No Pin
7 & 18	No Pin	No Pin	No Pin
8 & 17	No Pin	No Pin	No Pin
9 & 16	No Pin	No Pin	No Pin
10 & 15	-Vout	Com / +Vout	Com
11 & 14	+Vout	Com / NC	+Vout
12 & 13	-Vin	NC / -Vout	-Vin

BOTTOM VIEW

Mechanical tolerances are $\pm 0.04"$



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All dimensions are in inches (MM)



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