



CUS & CUD Series of 1 Watt DC/DC Converters



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

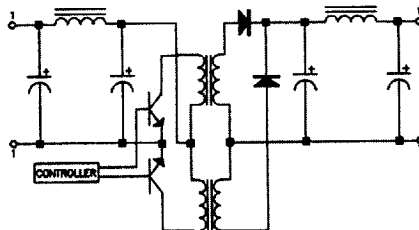
FEATURES

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

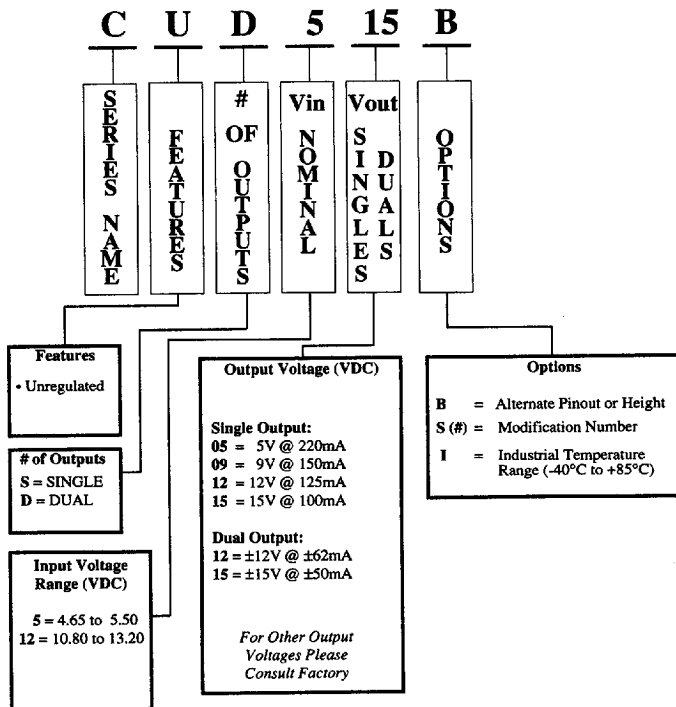
APPLICATIONS

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

BLOCK DIAGRAM



PART NUMBER SELECTION GUIDE



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INTERNATIONAL POWER DEVICES, INC.
20 Linden Street, Boston, MA 02134 • Phone: (617)782-3331 • Fax: (617)782-7416



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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 = $P_{out} * (1 - \text{Eff}) / \text{Eff}$.
Isolation Voltage						
Input to Output	500			VDC		
Input to Case	500			VDC		
Output to Case	500			VDC		
Isolation Resistance						2. Provided for input fuse selection.
Input to Output	10 ⁹			Ohms		
Isolation Capacitance						
Input to Output	80			pF		
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			±4.00%	V _{out}	Full Load	
+V _{out}			±4.00%	V _{out}	Full Load	
-V _{out}						
Load Regulation			±10.0%	V _{out}	20% to 100%	
+V _{out}			±10.0%	V _{out}	20% to 100%	
-V _{out}			±1.50%	V _{out}	LL to HL	
Line Regulation			0.02%	V _{out}		
Temp. Coefficient			0.05%	°C		
Voltage Stability			1.00%	V _{out}		
Ripple and Noise					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.						



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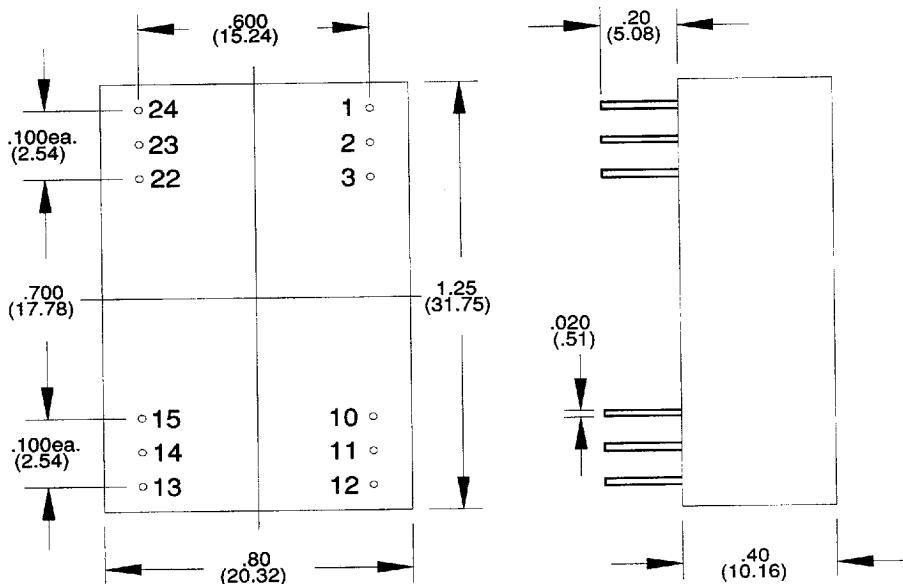
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PIN #	SINGLE	DUAL	DUAL "B"
1 & 24	+Vin	+Vin / -Vin	+Vin
2 & 23	No Connect	+Vin / -Vin	-Vout
3 & 22	No Connect	+Vin / -Vin	Com
4 & 21	No Pin	No Pin	No Pin
5 & 20	No Pin	No Pin	No Pin
6 & 19	No Pin	No Pin	No Pin
7 & 18	No Pin	No Pin	No Pin
8 & 17	No 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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