SEMICONDUCTOR CIRCUITS
General Purpose, Economy DC/DC Converters

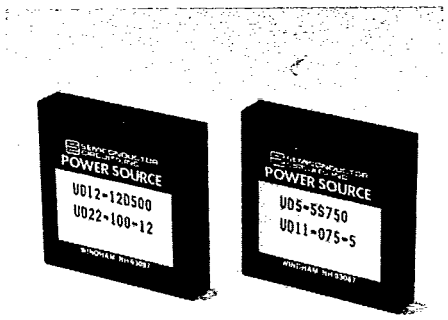
UD

- EFFICIENCY TO 85%
- MTBF EXCEEDS 150,000 HOURS
- OUTPUTS SHORT CIRCUIT PROTECTED

The UD Series are compact, economy-priced single and dual output DC/DC converters. These units contain no output regulator, but efficient design affords ample regulation for many analog and digital applications. Otherwise this family boasts the same excellent features of the RD and RA Series described elsewhere within these pages.

All UD models offer easy to use built-in quality features. These include a high performance Pi input filter which minimizes input reflected ripple and an advanced design which reduces output noise. For reliability, all outputs are short-circuit protected, while efficiency to 85% promotes cooler operation and MTBFs in excess of 150,000 hours.

Input-to-output isolation and dual output tracking provide versatility and round out a combination of features usually found in converters costing far more.



Ordering Information

Input Voltage Range (Vdc)	* Output Voltage (Vdc)	* Output Current (mA)	Pkg. (Fig. 1)	New Model Number	Old Model Number
4.5-5.5	5V	750	B	**UD11-075-5**	UD5-5S750
4.5-5.5	12V	600	B	**UD12-060-5**	UD5-12S600
4.5-5.5	+12V/ −5V	+300/ −100	B	**UD24-040-5**	UD5722
4.5-5.5	±12V	±300	B	**UD22-060-5**	UD5-12D300
		±400	C	**UD22-080-5**	UD5-12D400
10.8-13.2		±500	B	**UD22-100-12**	UD12-12D500
		±650	C	**UD22-130-12**	UD12-12D650
4.5-5.5	±15V	±300	B	**UD23-060-5**	UD5-15D300
		±400	C	**UD23-080-5**	UD5-15D400
10.8-13.2		±500	B	**UD23-100-12**	UD12-15D500
		±650	C	**UD23-130-12**	UD12-15D650

*Other versions available, please consult factory.
Socket Information: Standard UD, use socket P/N #100038
For socket dimensional information refer to page 23
NOTE: Dual output units may be run unbalanced provided maximum rated output power is not exceeded. Example: ±12 V ±650 mA may be used as single 12 V 1300 mA. Use dual output pin connections.

General Specifications

Input Reflected Ripple
<1% Vin (max)

Output Voltage Tolerance
±3% at specified Vin and F.L.

Regulation
Line: 1%/% Vin (Typ.)
Load: See load curve

Ripple and Noise
30mV RMS

Operating Temperature Range
−25°C to +71°C (No Derating)

Storage Temperature Range
−40°C to +85°C

Efficiency
65-85% (at nominal line, full load)

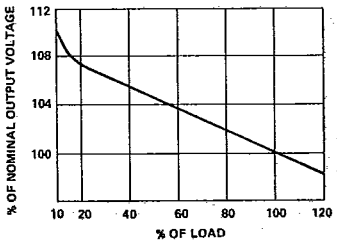
I/O Isolation
Voltage: 300Vdc
Resistance: 100 Megohms

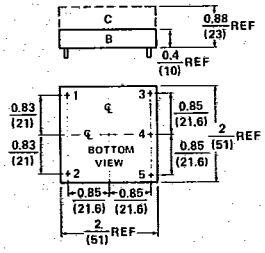
Oscillator Frequency Range
6-20 kHz

Output Protection
Short-Circuit Protected

Dimensions and Connections

LOAD CURVE (typ)





Connections

Single Outputs	Dual Outputs
PIN 1 +Vdc in	PIN 1 +Vdc in
2 −Vdc in	2 −Vdc in
3 +Vdc out	3 +Vdc out
4 Do Not Connect	4 Common out
5 −Vdc out	5 −Vdc out

NOTES:
1. Five Pins 0.040 (1.0) Dia. × 0.20 (5.1) Lg. Min.
2. All dimensions are in Inches and (mm).

APPLICATION NOTES:
Same as μD Series Application Notes 2 and 3 in following pages.

Specifications Subject to Change Without Notice.

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