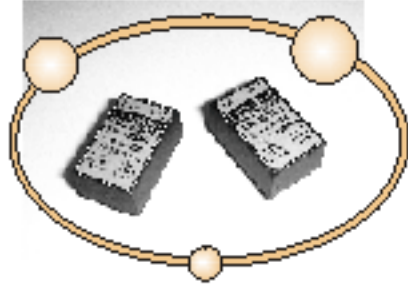


6~24Watt Non-Isolation DC to DC Converters



FEATURES

- 6-24 Watts Non I/O Isolation
- Low Cost , Compact Size
- Dip 24 Package

- High Efficiency Up To 94%
- Regulated Output
- Input LC Filter

SPECIFICATIONS

All Specifications are Typical at Nominal Line Full Load and 25°C Unless Otherwise Noted.

- Input Voltage/Range..... See Model List.
- Input Filter..... LC Type.
- Output Voltage Accuracy..... $\pm 2\%$ (Max.)
- Line Regulation.....(HL-LL)..... $\pm 0.5\%$ (Max.)
- Load Regulation.....(FL-10%FL)..... $\pm 0.5\%$ (Max.)
- R&N (20MHz BW).....(3.3V/5V).....100mVp-p(Max.)
-(12V/15V).....1% Vp-p(Max.)
- Switching Frequency.....150KHz (Typ.)
- Over Current Protection.....120% -150%
- Temperature Coefficient..... $\pm 0.05\%$ / °C(Max.)
- Operating Temperature..... -25 To +71°C
- Case Temperature..... 100°C(Max.)
- Storage Temperature.....-40 To +100°C
- Case Material:

Black Coated Copper Non-Conductive Base

PIN	PIN#	1	2	3	9	10	11	12
CONNECTION	FUNCTIONS	N.P.	-Vi	-Vi	-Vo	N.C.	+Vo	N.P.
PIN	PIN#	13	14	15	16	22	23	24
CONNECTION	FUNCTIONS	N.P.	+Vo	N.C.	-Vo	+Vi	+Vi	N.P.

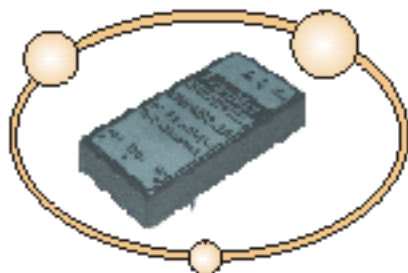
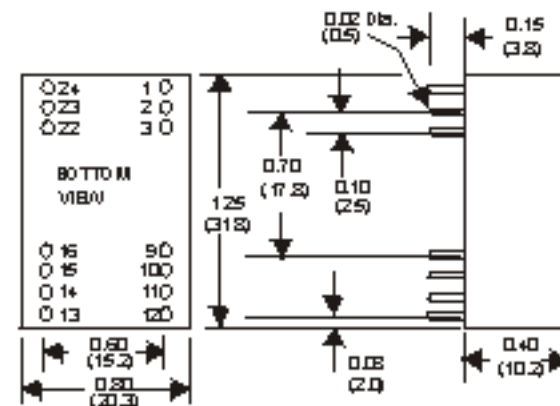
MODEL LIST

Model Number	Input Voltage	Input Range	Output Voltage	Output Current	EFF.	Case
EN-05S3.3	5VDC	4.7~6.0VDC	3.3VDC	2000mA	86%	D
EN-12S3.3	12VDC	9~32VDC	3.3VDC	2000mA	85%	D
EN-12S05	12VDC	9~32VDC	5VDC	2000mA	88%	D
EN-12S12	12VDC	9~32VDC	12VDC	830mA	87%	D
EN-12S15	12VDC	9~32VDC	15VDC	666mA	87%	D
EN-24S12	24VDC	16~32VDC	12VDC	1600mA	93%	D
EN-24S15	24VDC	19~32VDC	15VDC	1600mA	94%	D

CASE D

All Dimensions In Inches (mm)

[Click to enlarge](#)



FEATURES

- 20 Watts Non I/O Isolation
- Output Voltage Adjustment
- Over Current Protection

- High Efficiency Up To 88%
- Regulated Output
- Under Input Voltage Protection

SPECIFICATIONS

All Specifications are Typical at Nominal Line Full Load and 25°C Unless Otherwise Noted.

- Input Voltage/Range.....5V.....4.5-5.5V
- Input Filter.....Capacitive.
- Remote Shutdown².....Positive Logic
- Output Voltage Accuracy..... $\pm 1\%$ (Max.)
- External Trim Adj. Range..... $\pm 10\%$ (Max.)
- Line Regulation.....(HL-LL)..... $\pm 0.5\%$ (Max.)
- Load Regulation.....(FL-10%FL)..... $\pm 0.5\%$ (Max.)
- R&N (20MHz BW)³.....75mVp-p(Max.)
- Current Limit.....120%~150% Nominal Output
- Switching Frequency.....200KHz (Typ.)
- Over Current Protection.....Auto-Recovery
- Temperature Coefficient..... $\pm 0.05\%$ / °C(Max.)
- Operating Temperature..... -25 To +71°C
- Storage Temperature.....-40 To +105°C
- Case Material.....Non-Conductive Black Plastic

Note:

1. Specification apply to model and require an 470 μ F input capacitor.
2. Logic Compatibility with Open Collector TTL or CMOS.
3. Measured from output connect with an external capacitor 0.1 μ F ceramic.

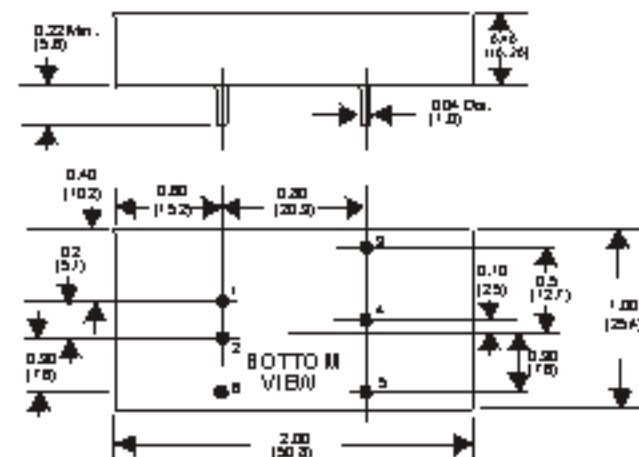
Model List

Model Number	Input Voltage	Input Range	Output Voltage	Output Current	EFF.	Case
EN-05S1.2	5VDC	4.5~5.5VDC	1.2VDC	6000mA	72%	E
EN-05S2.1	5VDC	4.5~5.5VDC	2.1VDC	6000mA	82%	E
EN-05S2.5	5VDC	4.5~5.5VDC	2.5VDC	6000mA	84%	E
EN-05S3.3A	5VDC	4.5~5.5VDC	3.3VDC	6000mA	88%	E

CASE E

All Dimensions In Inches (mm)

[Click to enlarge](#)



PIN CONNECTION	
PIN#	FUNCTIONS
1	+Vin
2	-Vin
3	+Vout
4	Trim
5	-Vout
6	Remote ON/OFF