

DIP Series Miniature 1 Watt DC-DC Converters



T-57-11

FEATURES

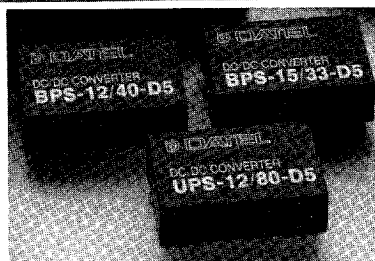
- Compact 24-Pin DIP Package
- Low noise, regulated outputs
- Pi Input Filter
- 300V dc isolation
- Short Circuit Protection

GENERAL DESCRIPTION

This family of miniature converters meets the demands of today's densely populated PC boards. Measuring only 1.25" x 0.8" x 0.4", each unit delivers 1 Watt of clean, fully regulated power. These devices are ideal for powering sensitive analog circuits, or in any application where low-power, isolated and regulated outputs are required.

All models include internal Pi-type filters to minimize reflected ripple current. Other features include continuous short-circuit protection with automatic restart, 300V dc isolation, and no derating over the full operating temperature range of -25 to +71 °C.

The converters accept a 5V nominal input, and provide +12V, ±12V, +15V, or ±15V outputs.



FUNCTIONAL SPECIFICATIONS

All specifications typical at nominal line, full load, and at 25 °C unless otherwise noted.

OUTPUTS	
Voltage Accuracy	±5% max
Line Regulation	±0.3%
Load Regulation	±0.4%
Temperature Coefficient	±0.01%/ °C
Ripple/Noise ①	20 mV Pk-Pk, max.
Overshoot, 10% to 90% Load	±0.1%
Warm-up Drift, 30 Minutes	±0.2%
Short Circuit Protection	Continuous
Short Circuit Restart	Automatic
INPUT	
Input Voltage Range	4.5 to 5.5V dc
Input Current	
No Load	90 mA
Full Load	380 mA
Input Filter	Pi Network
Reflected Ripple Current	15 mA p-p
Fault Mode Current	150% of FL Input Current, max

GENERAL	
Efficiency	50%
Isolation Voltage	300V dc, min
Isolation Capacitance	80 pF
Isolation Resistance	10E9 Ohms
Switching Frequency	40 to 70 kHz
ENVIRONMENTAL	
Operating Temp Range	-25 to +71 °C
Storage Temp Range	-40 to +125 °C
Humidity, Non-Condensing	20% to 95% RH
Cooling	Free Air Convection
PHYSICAL	
Weight	0.5 oz. (14 grams)
Case Material	Non-Conductive Black Plastic

Notes

- ① 20 MHz bandwidth, 15 µF tantalum capacitor across each output.



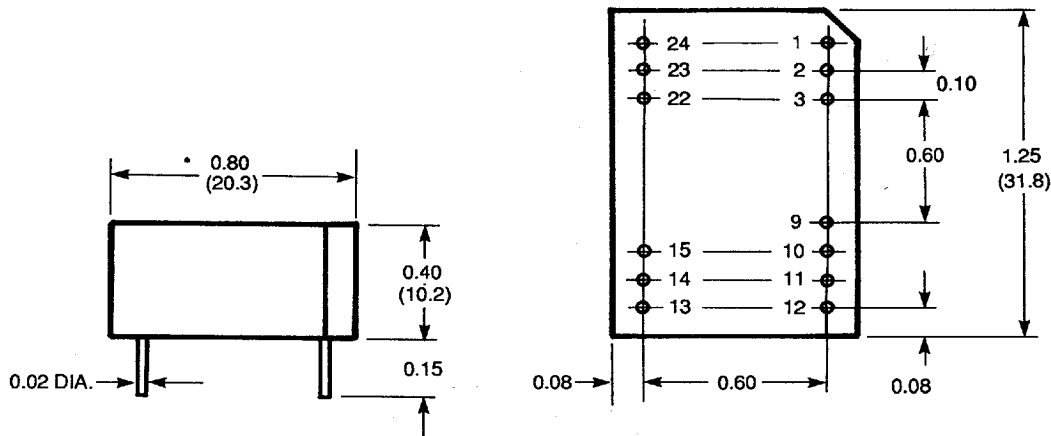
DIP Case Pin Connections

DIP Series Converters

Input Voltage	Output Voltage	Output Current	Case	Model Number
5 Vdc	12 Vdc	80 mA	DIP	UPS-12/80-D5
5 Vdc	15 Vdc	65 mA	DIP	UPS-15/65-D5
5 Vdc	±12 Vdc	±40 mA	DIP	BPS-12/40-D5
5 Vdc	±15 Vdc	±33 mA	DIP	BPS-15/33-D5

Pin	Single Output	Dual Output
1	+V Input	+V Input
2	NC	-V Output
3	NC	Common
10	-V Output	Common
11	+V Output	+V Output
12	-V Input	-V Input
13	-V Input	-V Input
14	+V Output	+V Output
15	-V Output	Common
22	NC	Common
23	NC	-V Output
24	+V Input	+V Input

DIP Case



For Immediate Assistance, Dial 1-800-233-2765