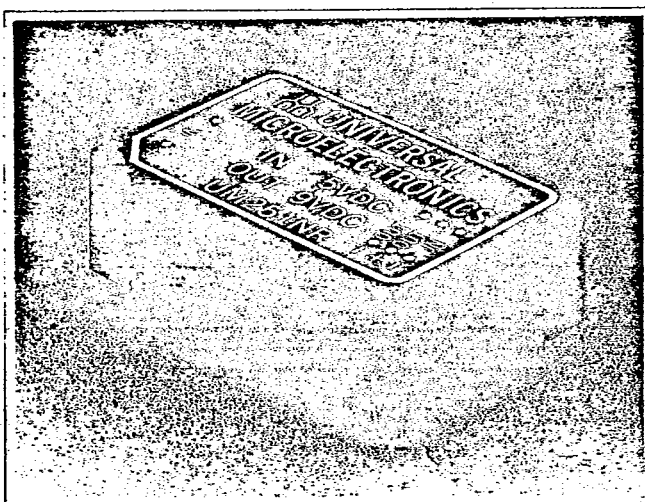


1 to 2 Watt LAN DC-DC Converters

LAN-1 SERIES



- Cheaper Application
- 24-Pin DIP Package
- Full Power to +71°C
- Pi Input Filter
- 5 or 12 VDC Input
- Short Circuit Protection

SPECIFICATIONS

All Specifications Typical At Nominal Line, Full Load, and 25°C Unless Otherwise Noted.

INPUT SPECIFICATIONS

Input Voltage 5 or 12 VDC
 Input Voltage Range $\pm 10\%$
 Input Filter Pi Network

OUTPUT SPECIFICATIONS

Output Voltage 9 VDC
 +10 VDC
 +5 VDC
 Voltage Accuracy, 9VDC $\pm 5\%$ max.
 +10 VDC $\pm 4\%$
 +5 VDC $\pm 2\%$
 Ripple and Noise, 20MHz BW, 9 VDC 100mV P-P
 +10 VDC 300mV P-P
 +5 VDC 300mV P-P
 Short Circuit protection Power Foldback
 Line Regulation
 Regulated Models $\pm 0.3\%$
 Unregulated Models¹ $\pm 1.2\%$
 Load Regulation
 Regulated Models² $\pm 0.5\%$
 Unregulated Models³ $\pm 6.0\%$

GENERAL SPECIFICATIONS

Efficiency
 Regulated Models 50%
 Unregulated Models 70%
 Switching Frequency 20kHz, min
 Isolation Voltage 500 VDC min.
 Operating Temperature Range -25°C to +71°C
 Storage Temperature Range -40°C to +85°C
 Dimensions 1.25 x 0.8 x 0.4 inches
 (31.8 x 20.3 x 10.2mm)
 Case Material Non-Conductive Black Material

NOTES:

1. Per 1% Change in Input Voltage.
2. For a Load Change from 60mA to 140mA.
3. For a Load Change from 100% Full Load to 20% Full Load.

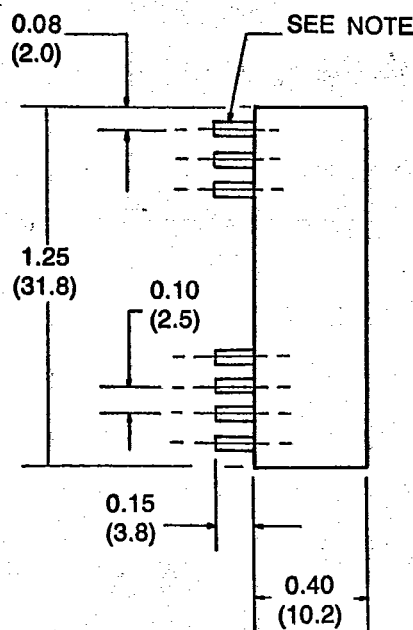
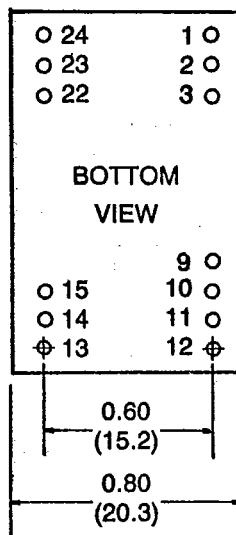


**UNIVERSAL
MICROELECTRONICS**

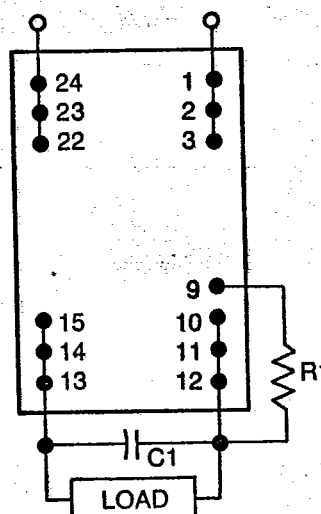
UNIVERSAL MICROELECTRONICS

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		PIN CONN.	CASE
				NO LOAD	FULL LOAD		
REGULATED							
UM251	5 VDC	9 VDC	140 mA	120 mA	540 mA	C	A
UM271	12 VDC	9 VDC	140 mA	45 mA	215 mA	C	A
UNREGULATED							
UM251NR	5 VDC	9 VDC	250 mA	100 mA	635 mA	A	A
UM255NR	5 VDC	10/5 VDC	100/80 mA	100 mA	400 mA	B	A
UM271NR	12 VDC	9 VDC	250 mA	40 mA	265 mA	A	A
UM275NR	12 VDC	10/5 VDC	100/80 mA	60 mA	165 mA	B	A

CASE A



PIN CONFIGURATION SUFFIX C



ALL DIMENSIONS IN INCHES (MM)

NOTE: PIN SIZE IS .020 INCH (0.5mm) DIA. OR .020 x .014 INCH.

Pin	A <i>19A</i>	B <i>322</i>	C <i>523</i>
1	+V Input	+ V Input	+V Input
2	NC	Vo Common	+V Input
3	NC	+5V Output	+V Input
9	No Pin	No Pin	Resistor
10	-V Output	Vo Common	+V Output
11	+V Output	+10V Output	+V Output
12	-V Input	-V Input	+V Output
13	-V Input	-V Input	-V Output
14	+V Output	+10V Output	-V Output
15	-V Output	Vo Common	-V Output
22	NC	+5V Output	-V Input
23	NC	Vo Common	-V Input
24	+V Input	+V Input	-V Input

* External Resistor R1.

* C1 = 10.0μF 25V Tantalum Capacitor

* R1 = 100Ω

C1 will improve output noise performance. It is not required for converter operation. Regulated units only (UM251, UM271). Pin 9 provides a preregulated output voltage, which when used as shown above provides for a full load output current of 140mA, when load current is less than 60mA output voltage will rise and for a no load condition it can rise to approximately 13 volts.