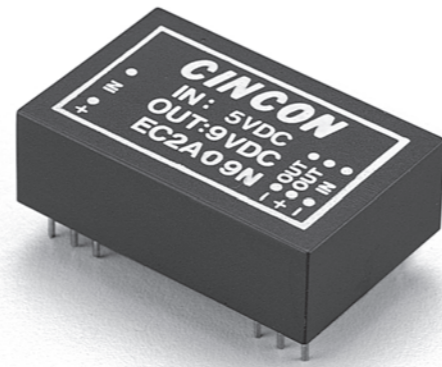


# LAN-1

S E R I E S

## 1 TO 2 WATT LAN DC-DC CONVERTERS



### Features

- 1-2W Output Power
- Pi Input Filter
- DIP-24 Package
- Input Voltage 5V & 12V

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		PIN CONN.	CASE
				NO LOAD	FULL LOAD		
<b>REGULATED</b>							
EC2A09M	5 VDC	9 VDC	140 mA	120 mA	540 mA	B	DIP-24
EC2A19M	12 VDC	9 VDC	140 mA	45 mA	215 mA	B	DIP-24
<b>UNREGULATED</b>							
EC2A09N	5 VDC	9 VDC	250 mA	100 mA	600 mA	A	DIP-24
EC2A19N	12 VDC	9 VDC	250 mA	40 mA	260 mA	A	DIP-24

Pin	A	B	
1	+V Input	+V Input	• External Resistor R1.
2	NC*	+V Input	• C1=10.0µF 25V Tantalum Capacitor
3	NC*	+V Input	• R1=100Ω
9	No Pin	Resistor	• NC=No Connection (With Pin)
10	-V Output	+V Output	C1 will improve output noise performance. It
11	+V Output	+V Output	is not required for converter operation.
12	-V Input	+V Output	Regulated units only (EC2A09, EC2A19). Pin
13	-V Input	-V Output	9 provides a preregulated output voltage,
14	+V Output	-V Output	which when used as shown above provides
15	-V Output	-V Output	for a full load output current of 140 mA, when
22	NC*	-V Input	load current is less than 60 mA output volt-
23	NC*	-V Input	age will rise and for a no load condition it
24	+V Input	-V Input	can rise to approximately 13 volts.

### Specifications

#### INPUT SPECIFICATIONS:

Input Voltage .....5 or 12VDC  
 Input Voltage Range.....±10%  
 Input Filter.....Pi Type

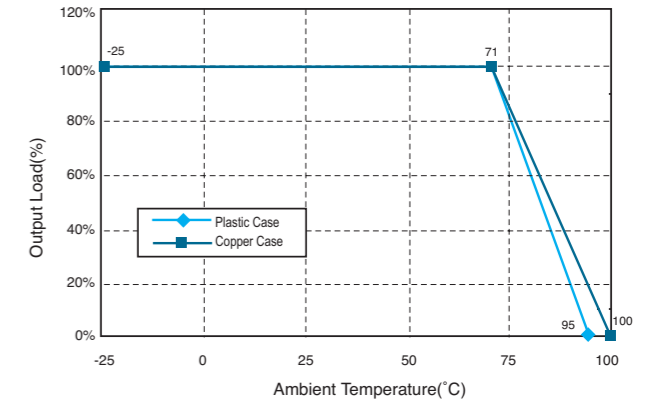
#### OUTPUT SPECIFICATIONS:

Output Voltage.....9 VDC  
 .....+10 VDC  
 .....+5 VDC  
 Voltage Accuracy, 9 VDC.....+5.0% max.  
 +10 VDC.....±4.0%  
 +5 VDC.....±2.0%  
 Ripple & Noise, 20MHz BW, 9VDC.....100mV p-p  
 +10 VDC.....300mV p-p  
 +5 VDC.....300mV p-p  
 Short Circuit Protection.....Momentary  
 Line Regulation  
 Regulated Models.....±0.3%  
 Unregulated Models<sup>1</sup>.....±1.2%  
 Load Regulation  
 Regulated Models<sup>2</sup>.....±0.5%  
 Unregulated Models<sup>3</sup>.....±6.0%

#### GENERAL SPECIFICATIONS:

Efficiency  
 Regulated Models.....50%  
 Unregulated Models.....70%  
 Switching Frequency.....20KHz, min.  
 Isolation Voltage.....500 VDC min.  
 Operating Ambient Temperature Range .....-25°C to +71°C  
 De-rating, Above 71°C (Plastic Case).....Linearly to Zero power at 95°C  
 De-rating, Above 71°C (Copper Case)... Linearly to Zero power at 100°C  
 Case Temperature (Plastic case<sup>4</sup>) ..... 95°C max  
 (Copper case<sup>4</sup>) ..... 100°C max  
 Cooling ..... Natural Convection  
 Storage Temperature Range.....-40°C to + 85°C  
 Dimensions.....1.25 x 0.80 x 0.40 inches  
 (31.8 x 20.3 x 10.2mm)  
 Case Material.....Non-Conductive Black Plastic  
 Suffix "M" Model.....Black Coated Copper with  
 Non-Conductive Base  
 Weight.....12.5g

### LAN-1 Series Derating Curve



#### NOTE:

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.
4. Maximum case temperature under any operating condition should not exceed 95°C (Plastic Case), 100°C (Copper Case).

### CASE A

NOTE: Pin Size is 0.02" Inch (0.5mm) DIA  
 All Dimensions In Inches (mm)  
 Tolerance Inches: x.xx= ±0.02, x.xxx= ±0.010  
 Millimeters: x.x= ±0.5, x.xx= ±0.25

