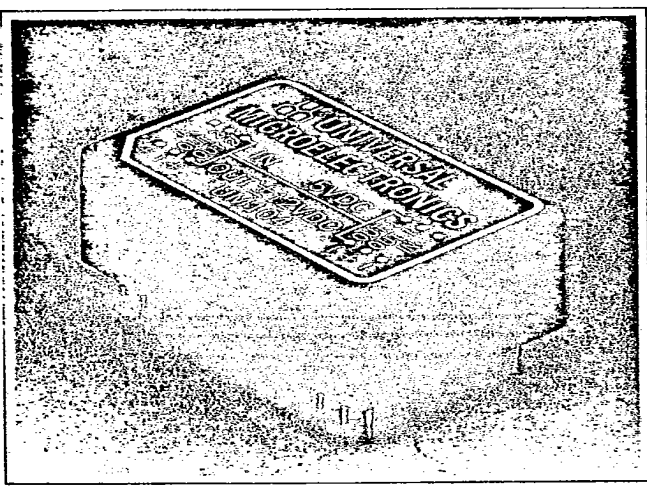


# 0.5 to 1 Watt DC-DC Converters

## UM 100 SERIES



- 24-Pin DIP Package
- 50% Efficiency
- Regulated Outputs
- Pi Input Filter
- Low Ripple and Noise
- Short Circuit Protection

### SPECIFICATIONS

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

### INPUT SPECIFICATIONS

Input Voltage Range ..... ±10%  
 Input Filter ..... Pi Network

### OUTPUT SPECIFICATIONS

Voltage Accuracy ..... ±5% max.  
 Temperature Coefficient ..... ±0.1%/°C  
 Ripple and Noise, 20MHz BW ..... 20mV P-P max.  
 Short Circuit Protection ..... Short Term  
 Line Regulation ..... ±0.3%  
 Load Regulation ..... ±0.4%

### GENERAL SPECIFICATIONS

Efficiency ..... 50%  
 Isolation Voltage ..... 500VDC min.  
 Isolation Capacitance ..... 30pF  
 Isolation Resistance ..... 10<sup>9</sup> ohms  
 Switching Frequency ..... 20kHz, min.  
 Operating Temperature Range ..... -25°C to +71°C  
 Storage Temperature Range ..... -40°C to +100°C  
 Dimensions ..... 1.25 x 0.8 x 0.4 inches  
 (31.8 x 20.3 x 10.2mm)

Case Material  
 Standard Models ..... Non-Conductive Black Plastic  
 Suffix "M" Models ..... Black Coated Copper with Non-Conductive Base

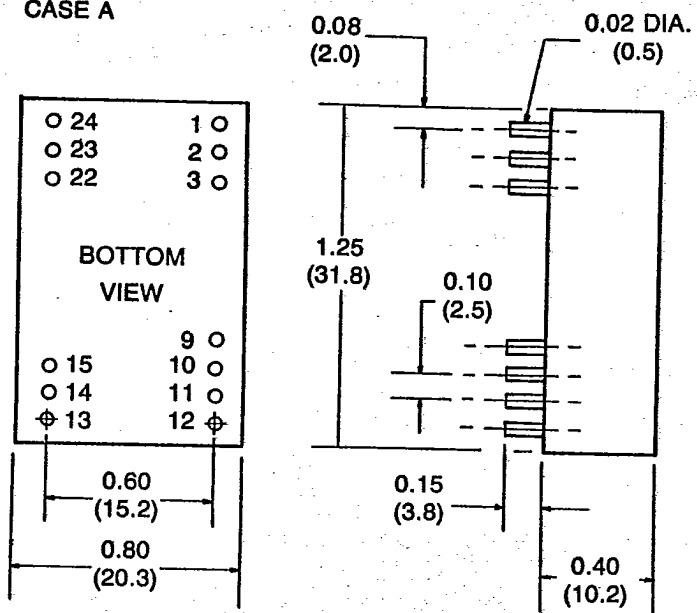
NOTE:  
 1.15 μF Tantalum Capacitor Across Each Output.



# UNIVERSAL MICROELECTRONICS

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		CASE
				NO LOAD	FULL LOAD	
UM101	5 VDC	5 VDC	100 mA	60 mA	220 mA	A
UM102	5 VDC	12 VDC	80 mA	70 mA	350 mA	A
UM103	5 VDC	15 VDC	65 mA	80 mA	350 mA	A
UM104	5 VDC	± 12 VDC	± 40 mA	85 mA	365 mA	A
UM105	5 VDC	± 15 VDC	± 33 mA	90 mA	380 mA	A
UM106	12 VDC	5 VDC	100 mA	30 mA	90 mA	A
UM107	12 VDC	12 VDC	80 mA	30 mA	145 mA	A
UM108	12 VDC	15 VDC	65 mA	35 mA	145 mA	A
UM109	12 VDC	± 12 VDC	± 40 mA	35 mA	150 mA	A
UM110	12 VDC	± 15 VDC	± 33 mA	40 mA	150 mA	A

CASE A



ALL DIMENSION IN INCHES (MM)

Pin Connections		
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

\* NC (NO CONNECTION) ON SINGLE OUTPUT MODELS