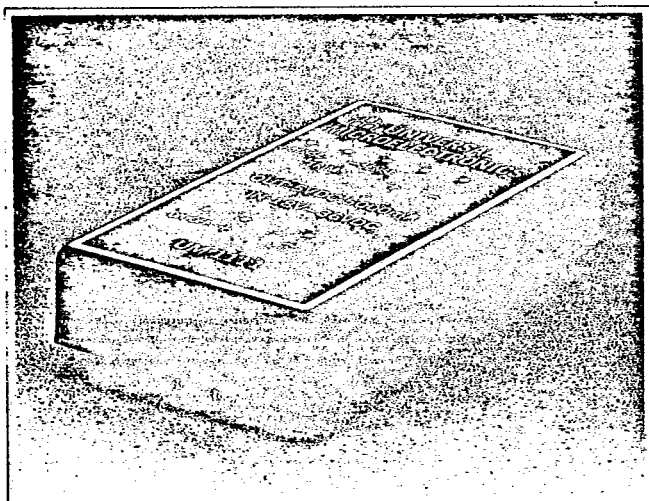


# 25 to 30 Watt DC-DC Converters

## UM 1100 SERIES



- 2:1 Input Range
- 30W Isolated Output
- Efficiency to 84%
- Remote On/Off Control
- 100 kHz Switching Frequency
- Six-Sided Shield

### SPECIFICATIONS

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

#### INPUT SPECIFICATIONS

Input Voltage Range, 12V .....	9-18V
24V .....	18-36V
48V .....	36-72V
Input Filter .....	PI Type
Reverse Voltage Protection <sup>3</sup> .....	Internal Shunt Diode Use External Fuse

### OUTPUT SPECIFICATIONS

Voltage Accuracy Single Output .....	± 1% max.
Dual + Output .....	± 1% max.
- Output .....	± 3% max.
Triple 5V .....	± 1% max.
12V/15V .....	± 5% max.
-5V .....	± 2% max.
Voltage Balance, Dual output at Full load .....	± 1.0% max.
Transient Response,	
Single, 25% step load change .....	< 500µ sec.
Dual, FL-1/2L ± 1% Error Band .....	< 500µ sec.
External Trim Adj. Range .....	± 10%
Ripple and Noise, 20MHz BW .....	10mV RMS, max. 75mV P-P max.
Temperature Coefficient .....	± 0.02%/°C, max.
Short Circuit Protection .....	Indefinite
Overvoltage Protection, 5V .....	6.8V
12V .....	15V
15V .....	18V
Line Regulation <sup>1</sup> , Single/Dual output .....	± 0.2% max.
Tripple output .....	± 1% max.
Load Regulation <sup>2</sup> , Single/Dual output .....	± 1% max.
Tripple output .....	± 5% max.

### GENERAL SPECIFICATIONS

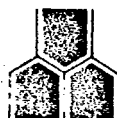
Efficiency .....	See Table
Isolation Voltage .....	500 VDC min.
Isolation Resistance .....	10 <sup>9</sup> ohms min.
Switching Frequency .....	100kHz
Case Grounding .....	Capacity Coupled to Input
Operating Temperature Range .....	- 25°C to + 71°C
Storage Temperature Range .....	- 55°C to + 105°C
EMI/RFI .....	Six-Sided Continuous Shield
Dimensions .....	2.56 × 4.56 × 0.83 inches (65 × 115.8 × 21.1mm)
Case Material .....	Black Coated Copper with Non-Conductive Base

#### NOTE:

1. Measured from High Line to Low Line.
2. Measured from Full Load to 1/4 Full Load.
3. Determine the correct fuse size by calculating the maximum DC current drain at low line input, maximum load and then adding 20 to 25% to get the desired fuse size.

#### REMOTED ON/OFF CONTROL

Logic Compatibility .....	CMOS or Open Collector TTL
E <sub>c</sub> -ON, .....	> + 5.5 VDC or Open Circuit
E <sub>c</sub> -OFF, .....	< 1.8 VDC
Shutdown Idle Current .....	10 mA
Input Resistance .....	(E <sub>in</sub> 0 VDC to 9 VDC) 100 KΩ
Control Common .....	Referenced to Input Minus



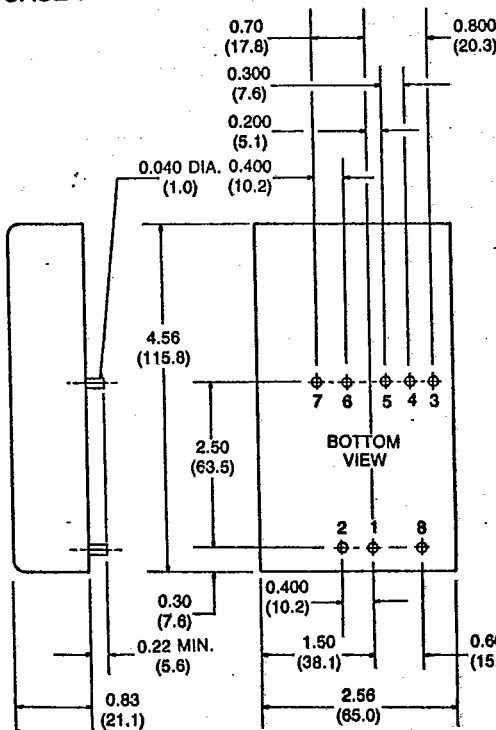
**UNIVERSAL  
MICROELECTRONICS**

# UNIVERSAL MICROELECTRONICS

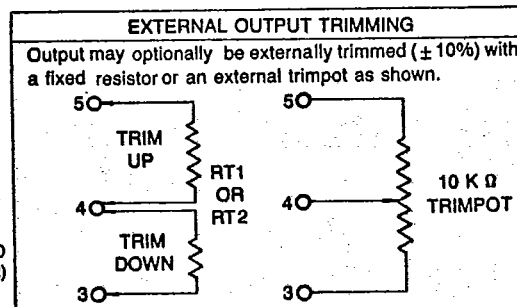
MODEL NUMBER	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT <sup>1</sup>		% EFF	CASE
				NO LOAD	FULL LOAD		
UM1101	9-18 VDC	5 VDC	5000 mA	30 mA	2800 mA	75	F
UM1102	9-18 VDC	12 VDC	2500 mA	30 mA	3200 mA	78	F
UM1103	9-18 VDC	15 VDC	2000 mA	30 mA	3200 mA	78	F
UM1104	9-18 VDC	± 12 VDC	± 1250 mA	25 mA	3050 mA	82	F
UM1105	9-18 VDC	± 15 VDC	± 1000 mA	25 mA	3050 mA	82	F
UM1106	9-18 VDC	+5/± 12 VDC	3000/± 450 mA	50 mA	2900 mA	74	F
UM1107	9-18 VDC	+5/± 15 VDC	3000/± 350 mA	50 mA	2750 mA	77	F
UM1108	9-18 VDC	+5/+ 12/- 5 VDC	3000/450/1000 mA	50 mA	2850 mA	74	F
UM1111	18-36 VDC	5 VDC	5000 mA	20 mA	1350 mA	77	F
UM1112	18-36 VDC	12 VDC	2500 mA	20 mA	1550 mA	80	F
UM1113	18-36 VDC	15 VDC	2000 mA	20 mA	1550 mA	80	F
UM1114	18-36 VDC	± 12 VDC	± 1250 mA	25 mA	1500 mA	84	F
UM1115	18-36 VDC	± 15 VDC	± 1000 mA	25 mA	1500 mA	84	F
UM1116	18-36 VDC	+5/± 12 VDC	3000/± 450 mA	40 mA	1350 mA	80	F
UM1117	18-36 VDC	+5/± 15 VDC	3000/± 350 mA	40 mA	1300 mA	82	F
UM1118	18-36 VDC	+5/+ 12/- 5 VDC	3000/450/1000 mA	40 mA	1300 mA	81	F
UM1121	36-72 VDC	5 VDC	5000 mA	20 mA	670 mA	78	F
UM1122	36-72 VDC	12 VDC	2500 mA	20 mA	770 mA	81	F
UM1123	36-72 VDC	15 VDC	2000 mA	20 mA	770 mA	81	F
UM1124	36-72 VDC	± 12 VDC	± 1250 mA	15 mA	750 mA	83	F
UM1125	36-72 VDC	± 15 VDC	± 1000 mA	15 mA	750 mA	83	F
UM1126	36-72 VDC	+5/± 12 VDC	3000/± 450 mA	30 mA	650 mA	82	F
UM1127	36-72 VDC	+5/± 15 VDC	3000/± 350 mA	30 mA	650 mA	82	F
UM1128	36-72 VDC	+5/+ 12/- 5 VDC	3000/450/1000 mA	30 mA	650 mA	81	F

NOTE: 1. Nominal Input Voltage 12, 24 or 48 VDC.

## CASE F



Pin Connections			
Pin	Single	Dual	Triple
1	+ Input	+ Input	+ Input
2	- Input	- Input	- Input
3	+ SENSE	+ Output	+ 12V, 15V
4	Output Trim	Common	Common
5	- SENSE	- Output	- 12V, 15V, 5V
6	+ Output	No Pin	+ 5V
7	- Output	No Pin	+ 5V com
8	Remote On/Off Control		



ALL DIMENSIONS IN INCHES (MM)