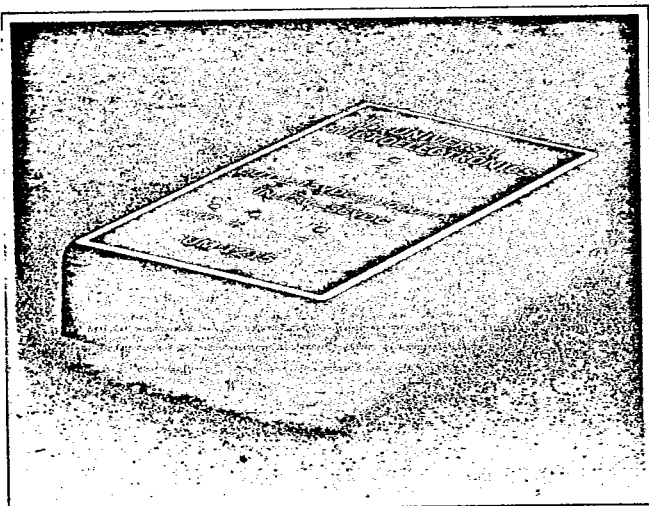


25 to 30 Watt DC-DC Converters

UM 1200 SERIES



- 3:1 Input Range
- 30W Isolated Output
- Efficiency to 86%
- 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	9-27V
24V	12-36V
48V	24-72V

Input Filter	Pi Type
Reverse Voltage Protection ³	Internal Shunt Diode Use External Fuse

OUTPUT SPECIFICATIONS

Voltage Accuracy, Single Output	± 1%, max.
Dual + Output	± 1%, max.
- Output	± 3%, max.

Voltage Balance, Dual output at Full load	± 1.0% max.
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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 ¹	± 0.2%, max.
Load Regulation ²	± 1%, max.

GENERAL SPECIFICATIONS

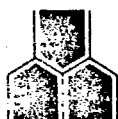
Efficiency	See Table
Isolation Voltage	500 VDC, min.
Isolation Resistance	10 ⁹ ohms, min.
Switching Frequency	100kHz
Case Grounding	Capacity Coupled to Input
Operating Temperature Range	-25°C to +71°C
Storage Temperature Range	-55°C to +105°C
EMI/RFI	Six-Sided Continuous Shield
Dimensions	2.56 x 4.56 x 0.83 inches (65 x 115.8 x 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.

REMOTE ON/OFF CONTROL

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



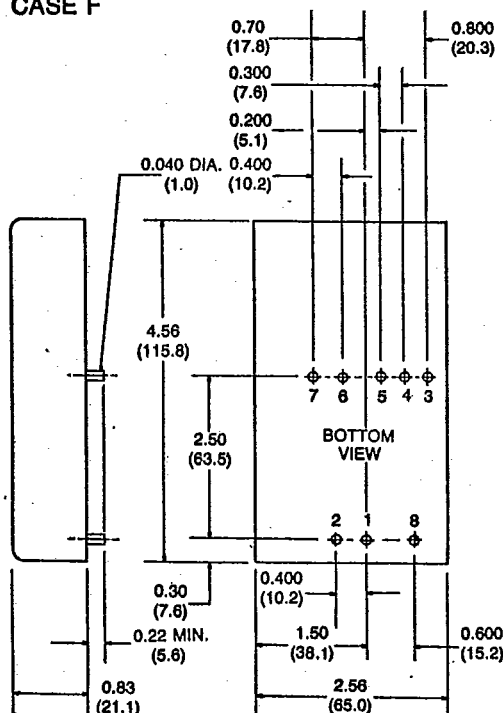
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UNIVERSAL MICROELECTRONICS

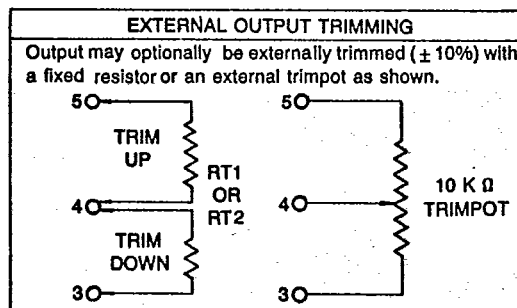
MODEL NUMBER	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT ¹		% EFF	CASE
				NO LOAD	FULL LOAD		
UM1201	9-27 VDC	5 VDC	5000 mA	30 mA	2800 mA	75	F
UM1202	9-27 VDC	12 VDC	2500 mA	30 mA	3200 mA	78	F
UM1203	9-27 VDC	15 VDC	2000 mA	30 mA	3200 mA	78	F
UM1204	9-27 VDC	±12 VDC	±1250 mA	25 mA	3050 mA	82	F
UM1205	9-27 VDC	±15 VDC	±1000 mA	25 mA	3050 mA	82	F
UM1211	12-36 VDC	5 VDC	5000 mA	20 mA	1350 mA	77	F
UM1212	12-36 VDC	12 VDC	2500 mA	20 mA	1550 mA	80	F
UM1213	12-36 VDC	15 VDC	2000 mA	20 mA	1550 mA	80	F
UM1214	12-36 VDC	±12 VDC	±1250 mA	25 mA	1500 mA	84	F
UM1215	12-36 VDC	±15 VDC	±1000 mA	25 mA	1500 mA	84	F
UM1221	24-72 VDC	5 VDC	5000 mA	20 mA	670 mA	78	F
UM1222	24-72 VDC	12 VDC	2500 mA	20 mA	770 mA	81	F
UM1223	24-72 VDC	15 VDC	2000 mA	20 mA	770 mA	81	F
UM1224	24-72 VDC	±12 VDC	±1250 mA	15 mA	750 mA	83	F
UM1225	24-72 VDC	±15 VDC	±1000 mA	15 mA	750 mA	83	F

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

CASE F



Pin Connections		
Pin	Single	Dual
1	+ Input	+ Input
2	- Input	- Input
3	+ Sense	+ Output
4	Output Trim	Common
5	- Sense	- Output
6	+ Output	No Pin
7	- Output	No Pin
8	Remote On/Off Control	



ALL DIMENSIONS IN INCHES (MM)