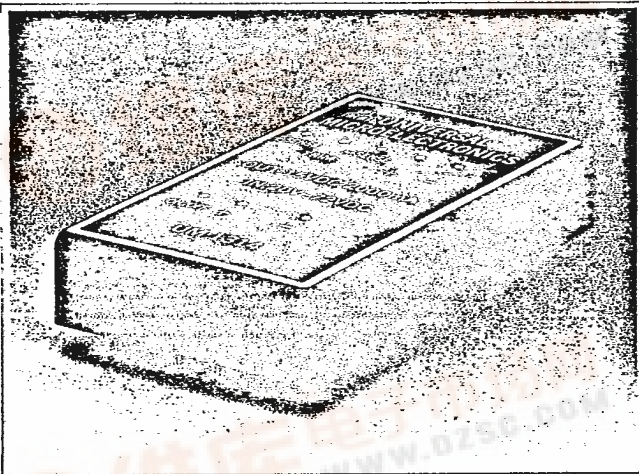


25 to 30 Watt DC-DC Converters

UM 1300 SERIES



- 4:1 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, 24V9-36V
 48V18-72V
 Input Filter.....Pi Type
 Reverse Voltage Protection.....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.
 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.
 Overvoltage Protection, Clamp See Table
 Short Circuit Protection, Indefinite
 Temperature Coefficient ± 0.02%/°C
 Line Regulation¹ ± 0.5%, max.
 Load Regulation² ± 1%, max.

GENERAL SPECIFICATIONS

Efficiency See Table
 Isolation Voltage 500 VDC, min.
 Isolation Resistance 10⁹ ohms, min.
 Switching Frequency 100kHz
 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

O.V.P.	
Output Voltage	O.V.P.
5 VDC	6.8V
6 VDC	8.2V
12 VDC	15V
15 VDC	18V

REMOTE ON/OFF CONTROL	
Logic Compatibility	CMOS or Open Collector TTL.
E _c -ON	+ 5.5 VDC or Open Circuit.
E _c -OFF	1.8 VDC
Control Common	Referenced to input Minus.

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.

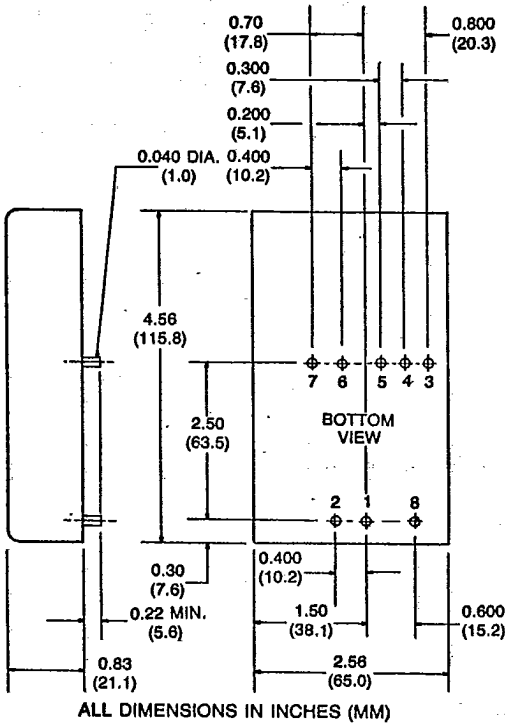


UNIVERSAL MICROELECTRONICS

MODEL NUMBER	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT ¹		% EFF	CASE
				NO LOAD	FULL LOAD		
UM1301	9-36 VDC	5 VDC	5000 mA	20 mA	1360 mA	76	F
UM1302	9-36 VDC	6 VDC	4500 mA	20 mA	1480 mA	77	F
UM1303	9-36 VDC	12 VDC	2500 mA	20 mA	1500 mA	82	F
UM1304	9-36 VDC	15 VDC	2000 mA	20 mA	1500 mA	83	F
UM1305	9-36 VDC	±12 VDC	±1250 mA	25 mA	1500 mA	83	F
UM1306	9-36 VDC	±15 VDC	±1000 mA	25 mA	1500 mA	83	F
UM1311	18-72 VDC	5 VDC	5000 mA	20 mA	880 mA	77	F
UM1312	18-72 VDC	6 VDC	4500 mA	20 mA	720 mA	78	F
UM1313	18-72 VDC	12 VDC	2500 mA	20 mA	750 mA	84	F
UM1314	18-72 VDC	15 VDC	2000 mA	20 mA	740 mA	85	F
UM1315	18-72 VDC	±12 VDC	±1250 mA	15 mA	750 mA	83	F
UM1316	18-72 VDC	±15 VDC	±1000 mA	15 mA	750 mA	83	F

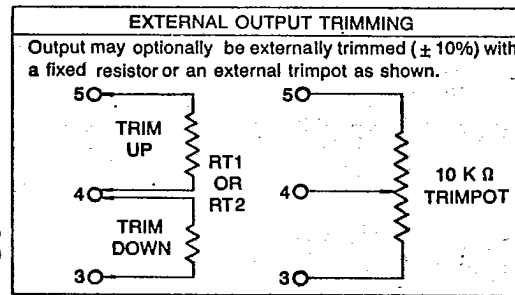
NOTE: 1. Nominal Input 24, 48 VDC.

CASE F



Pin Connections

Pin	Single Output	DUAL Output
1	+ Input	+ Input
2	- Input	- Input
3	+ Sense/Trim Down	+ Output
4	Output Trim	Common
5	- Sense/Trim Up	- Output
6	+ Output	No Pin
7	- Output	No Pin
8	Remote On/Off	Remote On/Off



If remote sensing is not utilized, output sense pins must be jumpered to respective output power pins, for normal operation connect Pin No. 3 to Pin No. 6 and Pin no. 5 to Pin No. 7.