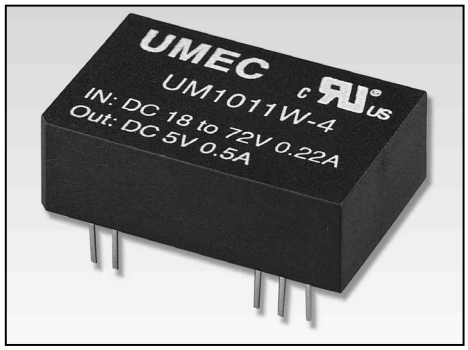
UM1000W-4 SERIES

3 Watt DC/DC Converters

- **Utilizes Surface Mount Technology**
- **4:1 Input Range**
- **7.5 Watts/Cubic Inch**
- **Efficiency to 80%**
- **200KHz Switching Frequency**
- **Continuous Short Circuit Protection**



SPECIFICATIONS

All specifications are typical at nominal line, full load and 25°C unless otherwise noted.

INPUT SPECIFICATIONS

Input Voltage Range,24V 9-36V
48V 18-72V
Input Filter ..... Pi Type

OUTPUT SPECIFICATIONS

Voltage Accuracy, Single Output ..... ± 2% max.
Dual +Output ..... ± 2% max.
- Output ..... ± 2% max.
Voltage Balance, Dual Output at Balance Load
..... ±1.0% max.
Transient Response
Single, 25% Step Load Change ..... <500u sec.
Dual, FL-1/2FL, ±1% Error Band ..... <500u sec.
Ripple and Noise, 20MHz BW
Single ..... 100mV p-p max.
Duals ..... 100mV p-p max.
Temperature Coefficient ..... ±0.02%/°C max.
Line Regulaion[1] ..... ±0.5% max.
LoadRegulation[2]Single Output ..... ±1.0% max.
Duals Output ..... ±1.0% max.
Short Circuit Protection ..... Continuous

GENERAL SPECIFICATIONS

Efficiency ..... see Table
Isolation Voltage ..... 1500 VDC min.
Isolation Resistance ..... 10^8Ohms min.
Isolation Capacitance 1000pF
Switching Frequency ..... 200KHz typ.
Operating Temperature Range
Ambient, None Derating ..... -40°C to +75°C
Case Temperature ..... 100°C max.
Cooling ..... Free Air Convection
Storage Temperature Range ..... -40°C to +125°C
Dimensions Case A ..... 1.25*0.80*0.40 inches
(31.8*20.3*10.2 mm)
Case Material ..... Non-Conductive Black Plastic
Weight 15g

NOTES

1. Measured from high line to low line.
2. Measured from full load to no load, dual outputs loaded equally.

UNIVERSAL MICROELECTRONICS

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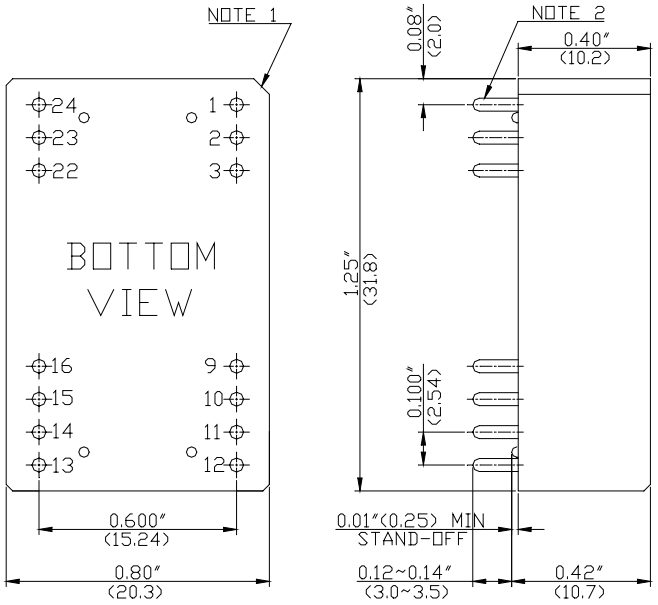
MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% TYP	REGULATION		CASE
				NO LOAD	FULL LOAD		LINE	LOAD	
UM1001W-4	24 VDC	5 VDC	500mA	15mA	130mA	80	0.5%	1.0%	A
UM1002W-4		12 VDC	250mA	15mA	157mA	80	0.5%	1.0%	
UM1003W-4		15 VDC	200mA	15mA	157mA	80	0.5%	1.0%	
UM1004W-4		±5 VDC	±250mA	15mA	130mA	80	±0.5%	±1.0%	
UM1005W-4		±12 VDC	±125mA	20mA	157mA	80	±0.5%	±1.0%	
UM1006W-4		±15 VDC	±100mA	20mA	157mA	80	±0.5%	±1.0%	
UM1009W-4		3.3VDC	500mA	15mA	93mA	74	0.5%	1.0%	
UM1011W-4	48 VDC	5 VDC	500mA	10mA	65mA	80	0.5%	1.0%	A
UM1012W-4		12 VDC	250mA	10mA	78mA	80	0.5%	1.0%	
UM1013W-4		15 VDC	200mA	10mA	78mA	80	0.5%	1.0%	
UM1014W-4		±5 VDC	±250mA	10mA	65mA	80	±0.5%	±1.0%	
UM1015W-4		±12 VDC	±125mA	10mA	78mA	80	±0.5%	±1.0%	
UM1016W-4		±15 VDC	±100mA	10mA	78mA	80	±0.5%	±1.0%	
UM1019W-4		3.3VDC	500mA	10mA	46mA	74	0.5%	1.0%	

MODEL NUMBER	UM 1001W -4	UM 1002W -4	UM 1003W -4	UM 1004W -4	UM 1005W -4	UM 1006W -4	UM 1009W -4	UM 1011W -4	UM 1012W -4	UM 1013W -4	UM 1014W -4	UM 1015W -4	UM 1016W -4	UM 1019W -4
MAXIMUM CAPACITIVE LOAD[1] (uF)	56	27	22	±27	±15	±10	56	470	220	150	±220	±100	±68	470

Note: 1. Maximum capacitive load Across the each output ports should not be over following indicated value.



PIN CONNECTIONS		
	Single Output	Dual Output
1	NP*	NP*
2	-V Input	-V Input
3	-V Input	-V Input
9	NC*	Common
10	NC*	NC*
11	NC*	-V Output
12	NP*	NP*
13	NP*	NP*
14	+V Output	+V Output
15	NC*	NC*
16	- V Output	Common
22	+V Input	+V Input
23	+V Input	+V Input
24	NP*	NP*

*NC: No Connection.
*NP: No Pin

All dimensions in inches (mm).
Note 1:Cut-corner marking for Pin No.1
Note 2:Pin size is 0.020±0.005 inches (0.5mm) dia.
or 0.020*0.012 inch
Note 3:Tolerance .xx=±0.04”
.xxx=±0.010”

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