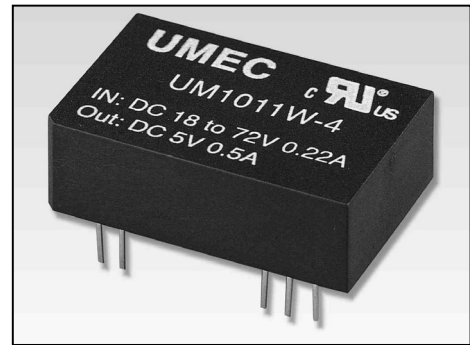


# UM1000W-4 SERIES

## 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



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### OUTPUT SPECIFICATIONS

Voltage Accuracy, Single Output .....  $\pm 2\%$  max.  
Dual +Output .....  $\pm 2\%$  max.  
- Output .....  $\pm 2\%$  max.  
Voltage Balance, Dual Output at Balance Load  
.....  $\pm 1.0\%$  max.  
Transient Response  
Single, 25% Step Load Change .....  $<500\mu$  sec.  
Dual, FL-1/2FL,  $\pm 1\%$  Error Band .....  $<500\mu$  sec.  
Ripple and Noise, 20MHz BW  
Single ..... 100mV p-p max.  
Duals ..... 100mV p-p max.  
Temperature Coefficient .....  $\pm 0.02\%/^{\circ}\text{C}$  max.  
Line Regulation<sup>1</sup> .....  $\pm 0.5\%$  max.  
Load Regulation<sup>2</sup> Single Output .....  $\pm 1.0\%$  max.  
Duals Output .....  $\pm 1.0\%$  max.  
Short Circuit Protection ..... Continuous

### GENERAL SPECIFICATIONS

Efficiency ..... see Table  
Isolation Voltage ..... 1500 VDC min.  
Isolation Resistance .....  $10^8$  Ohms min.  
Isolation Capacitance ..... 1000pF  
Switching Frequency ..... 200KHz typ.  
Operating Temperature Range  
Ambient, None Derating .....  $-40^{\circ}\text{C}$  to  $+75^{\circ}\text{C}$   
Case Temperature .....  $100^{\circ}\text{C}$  max.  
Cooling ..... Free Air Convection  
Storage Temperature Range .....  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$   
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

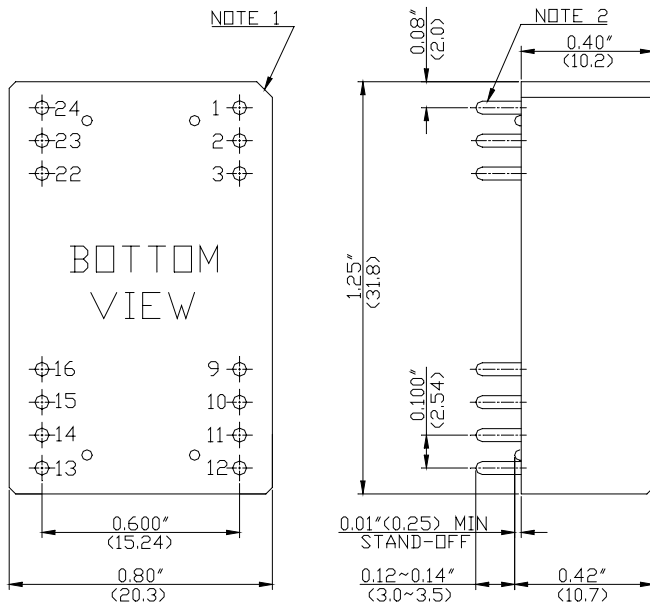
1. Measured from high line to low line.
2. Measured from full load to no load, dual outputs loaded equally.

2539 W. 237TH STREET, SUITE A  
TORRANCE, CA 90505  
TEL: (310) 326-7072 FAX: (310) 326-7058

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		%	REGULATION		CASE
				NO LOAD	FULL LOAD		TYP	LINE	
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 <sup>1</sup> (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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