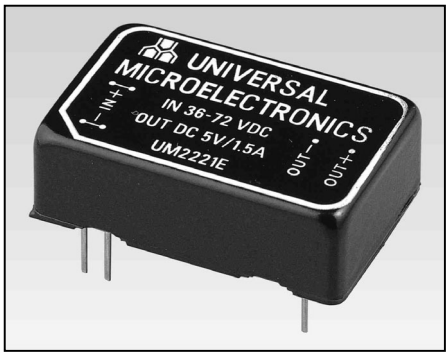


# UM2200E SERIES

## 7.5 Watt DC-DC Converters

- ◆ 2:1 Input Range
- ◆ 18.75 Watts/Cubic Inch
- ◆ Efficiency to 84%
- ◆ Overvoltage protection
- ◆ Short circuit protection



### SPECIFICATIONS

All specifications are 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 Network

### OUTPUT SPECIFICATIONS

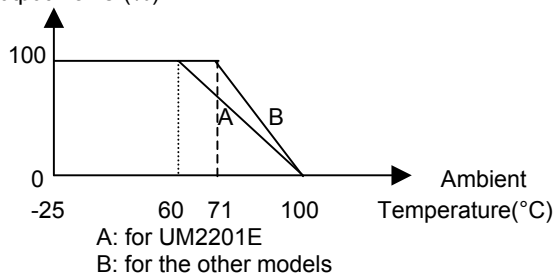
Voltage Accuracy, Single Output .....	±1% max.
Transient response	
Single, 25% Step Load Change .....	<500 u sec.
Ripple and Noise, 20MHz BW <sup>2</sup> .....	100mV P-P max.
Temperature Coefficient .....	±0.02%/°C max.
Short Circuit Protection .....	Continuous
Line Regulation <sup>3</sup> .....	±0.2% max.
Load Regulation <sup>4</sup> .....	±1.0% max.
Minimum Load <sup>5</sup> .....	10% I <sub>o</sub> max.
Overvoltage Protection (Zener clamp type), 5V ....	6.2V typ.
	3.3V ... 4.3V typ.

### GENERAL SPECIFICATIONS

Efficiency .....	See Table
Isolation Voltage .....	1500 VDC min.
Isolation Resistance .....	10 <sup>8</sup> ohms min.
Switching Frequency .....	200KHz min.
	400KHz typ.
Operating Temperature Range .....	-25°C to +71°C
Ambient, None Derating .....	See Note 1
Case Temperature <sup>6</sup> .....	100°C max.
Cooling .....	Free-Air Convection
Storage Temperature Range .....	-40°C to+105°C
Case Material <sup>7</sup> .....	Black-Coated Copper with Non-Conductive Base
Dimensions Case A .....	1.25*0.80*0.40 inches (31.75*20.32*10.16mm)
Weight .....	18g

### NOTES

1. Output Power(%)



- 2. Measured with 0.1uF ceramic cap. Connected to the output pins.
- 3. Measured from low line to high line.
- 4. Measured from full load to 1/4 full load.
- 5. The converter required a minimum 10% loading on the output. Operation below 10% load conditions will not damage these devices. However they may not meet all listed spec.
- 6. Maximum case temperature under any operating condition should not be exceed 100°C.
- 7. Metal case only.



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UM2200E

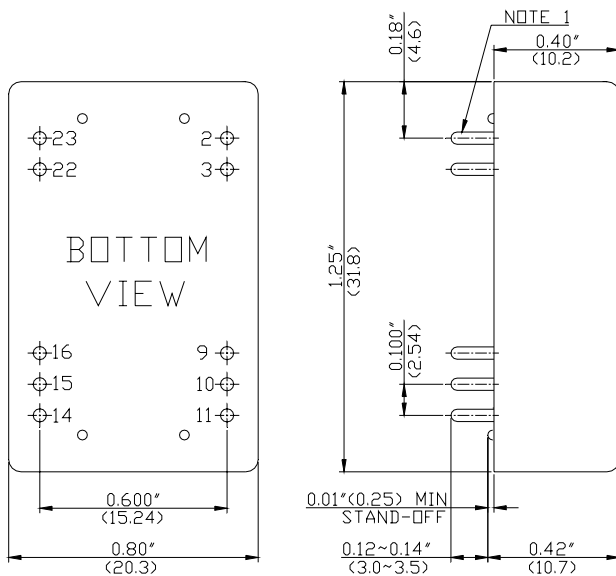
2539 W. 237TH STREET, SUITE A,  
TORRANCE, CA 90505  
TEL: (310) 326-7072 FAX: (310) 326-7058

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF	CASE
				NO LOAD	FULL LOAD		
UM2201E	12 VDC	5 VDC	1500 mA	20 mA	801 mA	78	A
UM2211E	24 VDC	5 VDC	1500 mA	10 mA	390 mA	80	A
UM2219E	24 VDC	3.3 VDC	2000 mA	10 mA	367 mA	75	A
UM2221E	48 VDC	5 VDC	1500 mA	5 mA	190 mA	82	A
UM2222E	48 VDC	12 VDC	625 mA	5 mA	186 mA	84	A
UM2229E	48 VDC	3.3 VDC	2000 mA	5 mA	179 mA	77	A

NOTES: 1. Maximum capacitive load across the each output ports should not be over following indicated values.

MODEL NUMBER	UM2201E	UM2211E UM2219E	UM2221E UM2229E	UM2222E
MAXIMUM <sup>1</sup> CAPACITIVE LOAD (uF)	+330	+330	+330	+330

CASE A



Pin Connections	
Pin	Single Output
2	-V Input
3	-V Input
9	NP*
10	NP*
11	NC*
14	+V Output
15	NP*
16	-V Output
22	+V Input
23	+V Input

\*NC (No Connection)

\*NP (No Pin)

All dimensions in inches (mm)

Note 1: Pin size is 0.020±0.005 inches (0.5mm) dia.

or 0.020\*0.012 inches

Note 2: Tolerance .xx=±0.04"

.xxx=±0.010"



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