

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 ²	100mV P-P max.
Temperature Coefficient	±0.02%/°C max.
Short Circuit Protection	
C o n t i n u o u s	
Line Regulation ³	±0.2% max.
Load Regulation ⁴	±0.5% max.
Minimum Load ⁵	10% I _o max.
Overvoltage protection(Zener clamp type)5V	6.2V typ.



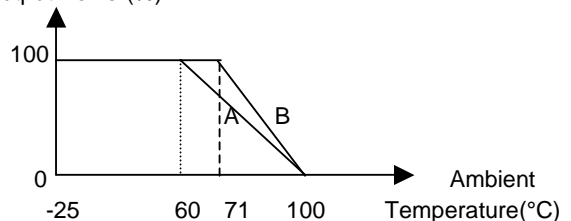
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GENERAL SPECIFICATIONS

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

NOTES

1. Output Power(%)



A: for UM2201E
B: for the other models

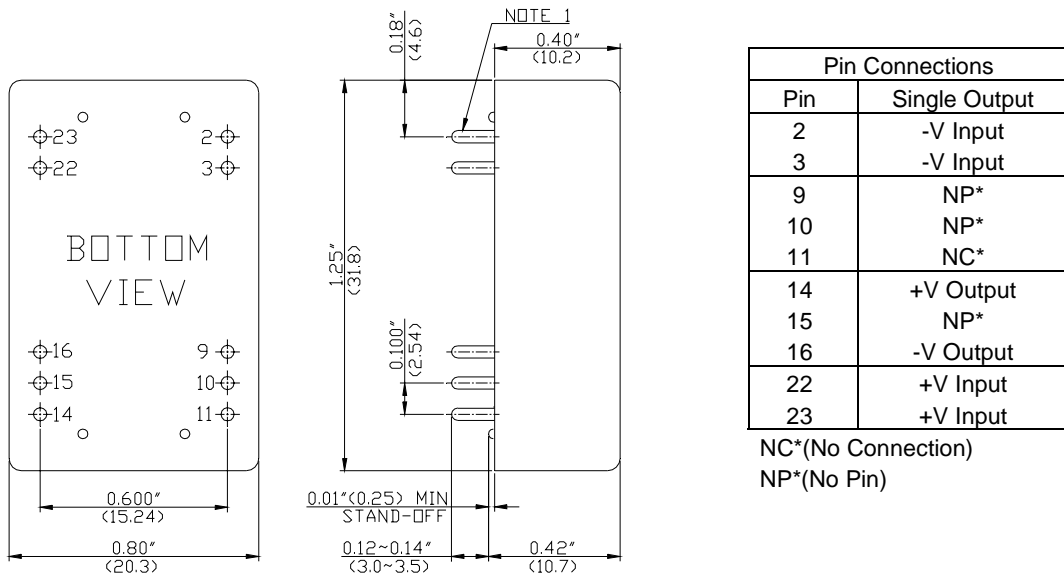
2. Measured with 0.1uF ceramic cap. Connected to the output pins.
3. Measured from low line to high line.
4. Measured from full load to 1/4 full load.
5. The converter required a minimum 10% loading on the output. Operation below 10% load conditions will not damage these devices. However they may not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

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
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

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

MODEL NUMBER	UM 2201E	UM 2211E	UM 2221E	UM 2222E
MAXIMUM ¹ CAPACITIVE LOAD(uF)	+330	+330	+330	+330

CASE A



All dimensions in inches(mm)

Note 1: Pin size is 0.020±0.005 inch(0.5mm)dia.
or 0.020*0.012 inch

Note 2: Tolerance .xx=±0.04
.xxx=±0.010



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3,27TH RD., TAICHUNG INDUSTRIAL PARK,
TAICHUNG, TAIWAN, R.O.C.
TEL: 886-423590096 FAX: 886-4-23590129