

UM3300 SERIES

10 Watt DC-DC Converters

- ◆ 2:1 Input Range
- ◆ 25 Watts/Cubic Inch
- ◆ Efficiency to 82%
- ◆ 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	18-36V
48V	36-75V
Input Filter	Pi Network

OUTPUT SPECIFICATIONS

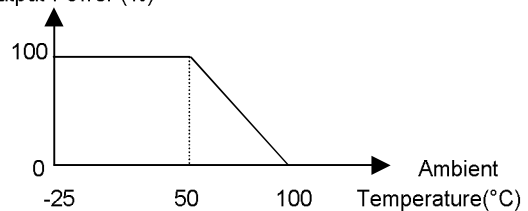
Voltage Accuracy, Single Output	±2% max.
Transient response ¹ , ±1% Error Band	<500 u sec.
Ripple and Noise, 20MHz BW ²	100mV P-P max.
Temperature Coefficient	±0.02%/°C max.
Short Circuit Protection	Continuous
Line Regulation ³	±0.2% max.
Load Regulation ⁴	±0.5% max.
Minimum Load ⁵	10% lo max.

GENERAL SPECIFICATIONS

Efficiency	See Table
Isolation Voltage	1500 VDC min.
Isolation Resistance	10 ⁸ ohms min.
Switching Frequency	400KHz typ.
Operating Temperature Range	-25°C to +100°C
Derating, 50°C to 100°C	See Note 6
Case Temperature ⁷	100°C max.
Cooling	Free-Air Convection.
Storage Temperature Range	-40°C to +105°C
Case Material ⁸	Black-Coated Copper with Non-Conductive Base.
Dimensions Case A	1.25 x 0.80 x 0.40 inches (31.75 x 20.32 x 10.16mm)
Weight	18g

NOTES:

1. di/dt=0.1A/1uS, Vin= nominal line, Tc=25°C; load change =0.5 lo max. to 0.75 lo max. and 0.75 lo max. to 0.5 lo max.
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. Output Power (%)



7. Maximum case temperature under any operating condition should not be exceed 100°C.
8. Metal case only.



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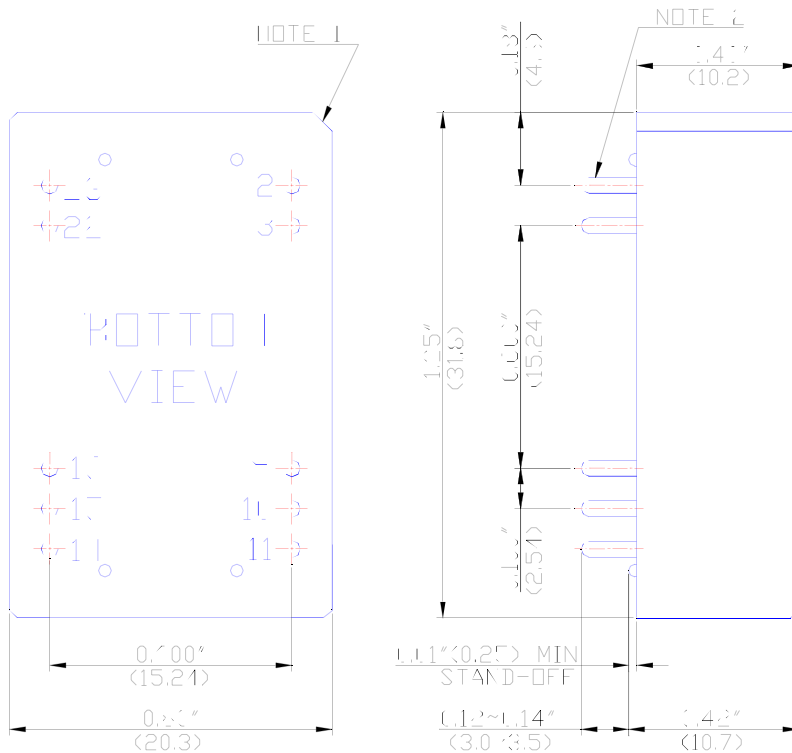
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MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF	CASE
				NO LOAD	FULL LOAD		
UM3311	24 VDC	5 VDC	2000 mA	10 mA	520 mA	80	A
UM3321	48 VDC	5 VDC	2000 mA	5 mA	254 mA	82	A

NOTES: 1. Maximum capacitive load across the each output ports should not be over following indicated values.
 2. Other output voltage can be supported upon request.

MODEL NUMBER	UM3311	UM3321
MAXIMUM ¹ CAPACITIVE LOAD (uF)	+200	+200

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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