

# UM 2300 SERIES

## 7.5 Watt DC-DC Converters

- ◆ 2:1 Input Range
- ◆ Efficiency to 82%
- ◆ Pi Input Filter
- ◆ Short Circuit Protection
- ◆ 200KHz Switching Frequency
- ◆ Six-Sided Shield
- ◆ Conductive EMI Meets CISPR22 Class A

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### 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.
Dual, +Output .....	±1% max.
-Output .....	±1% max.
Voltage Balance, Dual Output at Full Load	
.....	±1% max.
Transient Response	
Single, 25% step load change .....	<200µ sec.
Dual, FL-1/2L, ±1% Error Band .....	<200µ sec.
Ripple and Noise, 20MHz-BW .....	75mV P-P max.
Temperature Coefficient .....	±0.02%/°C max.
Short Circuit Protection .....	Continuous.
Line Regulation <sup>1</sup> .....	±0.2% max.
Load Regulation <sup>2</sup> , Single Output .....	±0.5% max.
Dual Output .....	±1.0% max.

### GENERAL SPECIFICATIONS

Efficiency .....	See Table.
Isolation Voltage .....	1500 VDC min.
Isolation Resistance .....	10 <sup>8</sup> Ohms min.
Switching Frequency .....	200 KHz
Operating Temperature Range,	
Ambient, None Derating .....	-25°C to +71°C
Cooling .....	Free Air Convection.
Storage Temperature Range .....	-55°C to +105°C
EMI/RFI .....	Six-Sided Continuous Shield.
Dimensions .....	2»ë1»ë0.4 inches.
	(50.8»ë25.4»ë10.2 mm)
Case Material <sup>3</sup> .....	Black-Coated Copper with Non-Conductive Base.
Weight .....	30g

### NOTES:

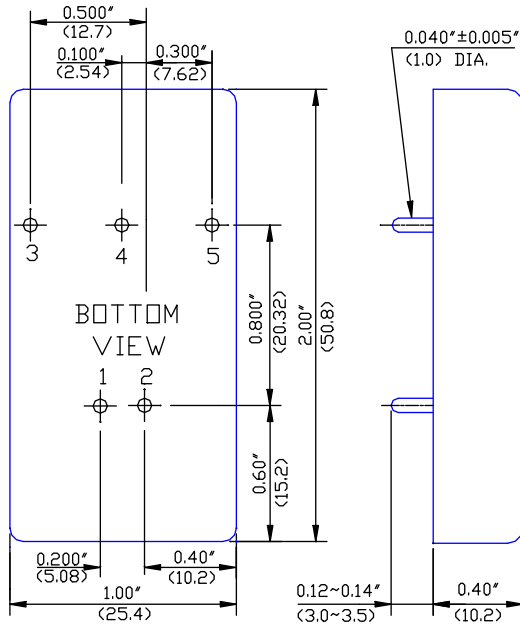
1. Measured from high line to low line.
2. Measured from full load to 1/4 full load (single).  
Measured from full load to 1/2 full load (dual).
3. Metal case only.

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF	CASE
				NO LOAD	FULL LOAD		
UM2301	12 VDC	5 VDC	1500 mA	45 mA	850 mA	74	B
UM2302		12 VDC	625 mA	45 mA	815 mA	77	
UM2303		15 VDC	500 mA	45 mA	815 mA	77	
UM2305		±12 VDC	±310 mA	45 mA	810 mA	77	
UM2306		±15 VDC	±250 mA	45 mA	810 mA	77	
UM2309		3.3 VDC	1500 mA	45 mA	590 mA	70	
UM2311	24 VDC	5 VDC	1500 mA	30 mA	400 mA	78	B
UM2312		12 VDC	625 mA	30 mA	380 mA	82	
UM2313		15 VDC	500 mA	30 mA	380 mA	82	
UM2315		±12 VDC	±310 mA	30 mA	385 mA	81	
UM2316		±15 VDC	±250 mA	30 mA	385 mA	81	
UM2319		3.3 VDC	1500 mA	30 mA	280 mA	74	
UM2321	48 VDC	5 VDC	1500 mA	25 mA	195 mA	80	B
UM2322		12 VDC	625 mA	25 mA	195 mA	81	
UM2323		15 VDC	500 mA	25 mA	195 mA	81	
UM2325		±12 VDC	±310 mA	25 mA	190 mA	82	
UM2326		±15 VDC	±250 mA	25 mA <td 190 mA	82		
UM2329		3.3 VDC	1500 mA	25 mA	135 mA	76	

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

MODEL NUMBER	UM 2301	UM 2302	UM 2303	UM 2305	UM 2306	UM 2309	UM 2311	UM 2312	UM 2313	UM 2315	UM 2316	UM 2319	UM 2321	UM 2322	UM 2323	UM 2325	UM 2326	UM 2329
Maximum <sup>1</sup> CAPACITIVE LOAD	+1500	+220	+150	+47	+47	+1500	+1500	+220	+150	+47	+47	+1500	+1500	+220	+150	+47	+47	+1500
	uF	uF	uF	uF	uF	uF	uF	uF	uF	uF	uF	uF	uF	uF	uF	uF	uF	uF

CASE B



PIN CONNECTIONS	
Pin	Function
1	+Input
2	-Input
3	+Output
4	Common/NP*
5	-Output

\*NP (No Pin) on single output models.

All dimensions in inches (mm).

Tolerance .xx=±0.04 .xxx=±0.010