

UM2700 SERIES

10W to 15 Watt DC-DC Converters

- ◆ 2:1 Input Range
- ◆ Efficiency to 83%
- ◆ Pi Input Filter
- ◆ Continuous Short Circuit Protection
- ◆ Conductive EMI Meet CISPR22 Class A

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.
Triple, +5V	±1% max.
Auxiliaries	±3% max.
Voltage Balance, Dual Output at Full Load,	±1.0% max.
Transient Response	
Single, 25% Step Load Change	<500μ sec.
Dual, FL-1/2FL, ±1% Error Band	<500μ sec.
Ripple and Noise, 20MHz BW ¹	75mV P-P max.
Triple Output Auxiliaries	125mV P-P max.
Temperature Coefficient	±0.02%/°C max.
Short Circuit Protection	Continuous
Line Regulation ² , Single/Dual Output	±0.2% max.
Triple Output +5V	±1% max.
Auxiliaries	±3% max.
Load Regulation ³ , Single Output.....	±0.2% max.
Dual Output ± 5V.....	±2.0% max.
Output ± 12V/15V.....	±1.0% max.
Triple Output +5V	±2.0% max.
Auxiliaries	±5.0% max.

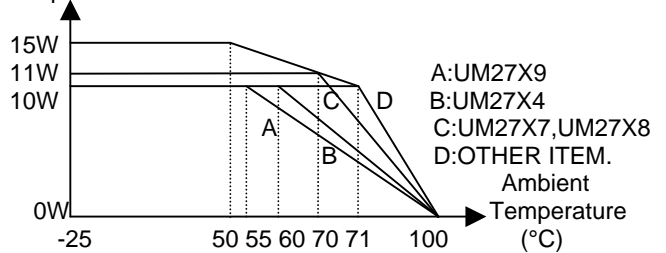
GENERAL SPECIFICATIONS

Efficiency	See Table
Isolation Voltage	1500 VDC min.
Isolation Resistance	10 ⁸ Ohms min.
Switching Frequency	
Single/Dual	400KHz
Triple	250KHz
Operating Temperature Range ⁴	-25°C to +100°C
Storage Temperature Range	-55°C to +105°C
EMI/RFI ⁵	Six-Sided Continuous Shield
Dimensions	2 x 1 x 0.4 inches (50.8 x 25.4 x 10.2mm)
Case Material ⁶	Black-Coated Copper with Non-Conductive Base
Weight	30g

NOTES:

1. Triple Output: Measured with 1uF ceramic cap. cross to each output.
2. Measured from high line to low line.
3. Single: from full load to 1/4 load.
Dual : from full load to 1/2 load.
Triple: +5V from full load to 1/4 load, Auxiliaries Output balanced load from full load to 1/4 load.

4. Output Power



Maximum case temperature under any operating condition must not be exceeded 100°C

5. Conductive EMI Meet CISPR22 Class A (Triple output: Input terminals with external electronic cap. 100uF/100V).
6. Metal case only.

11111111111

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF	CASE
				NO LOAD	FULL LOAD		
UM2701	12VDC	5 VDC	3000 mA	50 mA	1605 mA	78	B
UM2702		12 VDC	1250 mA	50 mA	1565 mA	80	
UM2703		15 VDC	1000 mA	50 mA	1565 mA	80	
UM2704		± 5 VDC	± 1000 mA	50 mA	1070 mA	78	
UM2705		± 12 VDC	± 625 mA	50 mA	1545 mA	81	
UM2706		± 15 VDC	± 500 mA	50 mA	1545 mA	81	
UM2709		3.3 VDC	3000 mA	50 mA	1115 mA	74	
UM2711	24VDC	5 VDC	3000 mA	20 mA	785 mA	80	B
UM2712		12 VDC	1250 mA	20 mA	765 mA	82	
UM2713		15 VDC	1000 mA	20 mA	765 mA	82	
UM2714		± 5 VDC	± 1000 mA	20 mA	520 mA	80	
UM2715		± 12 VDC	± 625 mA	20 mA	755 mA	83	
UM2716		± 15 VDC	± 500 mA	20 mA	750 mA	83	
UM2717		+5/± 12VDC	1000± 250mA	25 mA	566 mA	81	
UM2718		+5/± 15VDC	1000± 200mA	25 mA	566 mA	81	
UM2719		3.3 VDC	3000 mA	20 mA	545 mA	76	
UM2721	48VDC	5 VDC	3000 mA	10 mA	390 mA	80	B
UM2722		12 VDC	1250 mA	10 mA	380 mA	82	
UM2723		15 VDC	1000 mA	10 mA	380 mA	82	
UM2724		± 5 VDC	± 1000 mA	10 mA	260 mA	80	
UM2725		± 12 VDC	± 625 mA	10 mA	375 mA	83	
UM2726		± 15 VDC	± 500 mA	10 mA	375 mA	83	
UM2727		+5/± 12VDC	1000± 250mA	20 mA	283 mA	81	
UM2728		+5/± 15VDC	1000± 200mA	20 mA	283 mA	81	
UM2729		3.3 VDC	3000 mA	10 mA	270 mA	76	

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

MODEL NUMBER	UM27X1	UM27X9	UM2702	UM2712	UM2722	UM27X3	UM27X4	UM27X5	UM27X6	UM27X7	UM27X8
MAXIMUM CAPACTIVE LOAD	+2200uF	+470uF	+680uF	+330uF	+470uF	+330uF	+470uF	+330uF	+270uF	+330uF	+330uF
							-470uF	-330uF	-270uF	-68uF	-68uF

CASE B

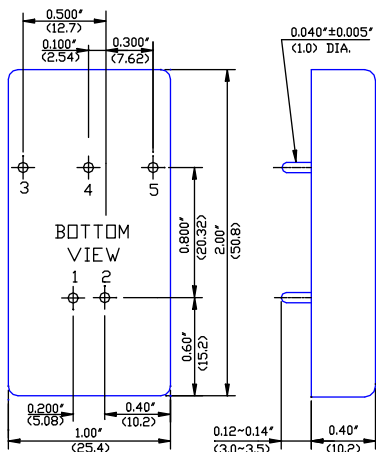


Fig.A

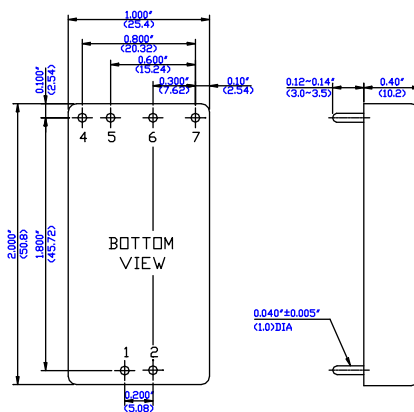


Fig.B

PIN CONNECTIONS		
Fig	A	B
Pin	Single/Dual	Triple
1	+Input	+Input
2	-Input	-Input
3	+Output	No pin
4	Common/ NP*	+Aux. out
5	-Output	-Aux. out
6	-	Common
7	-	+5V out

*NP(NO PIN)ON SINGLE OUTPUT

All dimensions in inches (mm).

Tolerance .xx=±0.04

.xxx=±0.010

11111111111



**UNIVERSAL
MICROELECTRONICS**