UM400 SERIES

5 to 6 Watt DC-DC Converters

♦ **High Performance**
♦ **Regulated Outputs**
♦ **Pi Input Filter**
♦ **60% Efficiency**
♦ **Six-Sided Shield**

SPECIFICATIONS

All specifications are typical at nominal line, full load and 25°C unless otherwise noted.

Efficiency …….….……………….……….……..………… 60%
Isolation Voltage ……………………………… 500 VDC min.
Isolation Capacitance …………………………………..… 80pF
Isolation Resistance ………………………….. 10^8 Ohms min.
Switching Frequency …………..……………... 20 KHz min.
Operating Temperature Range
    Ambient, None Derating …………..……… -25°C to +71°C
    Cooling …..……………………………… Free Air Convection
Storage Temperature Range ……….…..… –40°C to +100°C
EMI/RFI[2] ………………………... Six-Sided Continuous Shield
Dimensions ………………….…………..…… 2*2*0.4 inches
(50.8*50.8*10.2mm)
Case Material
  Standard Models …………..… Non-Conductive Black Plastic
UL94V-0
  Suffix "M" Models ……………..… Black-Coated Copper with
Non-Conductive Base
Weight ……..…………………………………………… 46g

Input Voltage	60% FL	80% FL	100% FL
5V	4.4-6.5V	4.5-6.0V	4.65-5.5V
12V	10.56-15.6V	10.8-14.4V	11.16-13.2V
24V	21.12-31.2V	21.6-28.8V	22.32-26.4V
28V	24.64-36.4V	25.2-33.6V	26.04-30.8V
48V	42.24-62.4V	43.2-57.6V	44.64-52.8V

NOTES:

1. Measured with 0.1uF ceramic capacitor connected to the output pins.
2. Metal case only.

INPUT SPECIFICATIONS

Input Voltage Range ………………………….……..See Table
Input Filter …………………………...………..…. Pi Network

OUTPUT SPECIFICATIONS

Voltage Accuracy ……………………………± 1.0% max.
Voltage Balance, Dual Output ….……………..………± 0.5%
Temperature Coefficient
  Single Output ……..…………………………± 0.02%/°C
  Dual Output ……..…………………………± 0.01%/°C
Ripple and Noise[1], 20MHz BW
  Single Output ……..…………….……… 50mV P-P max.
  Dual Output ……...…………………….. 35mV P-P max.
Short Circuit Protection ….……………..…… Current Limit
Line Regulation …………………………..……± 0.02%
Load Regulation ……………………..……..……… ± 0.2%

GENERAL SPECIFICATIONS

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		CASE	ALT[1] PIN OUT
				NO LOAD	FULL LOAD		
UM401	5 VDC	5 VDC	1000mA	60mA	1650mA	C	S, T
UM402		12 VDC	470mA	80mA	1750mA		
UM403		15 VDC	400mA	85mA	1800mA		
UM404		± 12 VDC	± 230mA	130mA	1700mA		
UM405		± 15 VDC	± 190mA	130mA	1700mA		
UM406	12 VDC	5 VDC	1000mA	40mA	690mA	C	S, T
UM407		12 VDC	470mA	50mA	710mA		
UM408		15 VDC	400mA	40mA	750mA		
UM409		± 12 VDC	± 230mA	60mA	710mA		
UM410		± 15 VDC	± 190mA	60mA	710mA		
UM411	24 VDC	5 VDC	1000mA	25mA	350mA	C	S, T
UM412		12 VDC	470mA	25mA	360mA		
UM413		15 VDC	400mA	25mA	370mA		
UM414		± 12 VDC	± 230mA	25mA	360mA		
UM415		± 15 VDC	± 190mA	35mA	360mA		
UM416	28 VDC	5 VDC	1000mA	25mA	290mA	C	S, T
UM417		12 VDC	470mA	25mA	300mA		
UM418		15 VDC	400mA	25mA	310mA		
UM419		± 12 VDC	± 230mA	30mA	300mA		
UM420		± 15 VDC	± 190mA	30mA	300mA		
UM421	48 VDC	5 VDC	1000mA	20mA	170mA	C	S, T
UM422		12 VDC	470mA	20mA	170mA		
UM423		15 VDC	400mA	20mA	180mA		
UM424		± 12 VDC	± 230mA	25mA	170mA		
UM425		± 15 VDC	± 190mA	25mA	170mA		

NOTE:

1.Alternate pin-out version. If available are designated by suffixes.
  For example,UM401 is also available as UM401S and UM401T.

CASE C
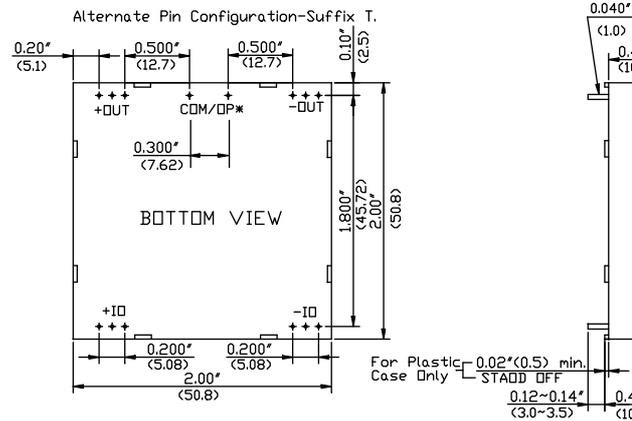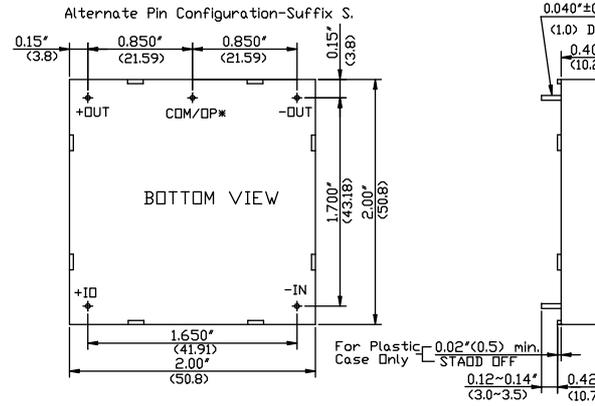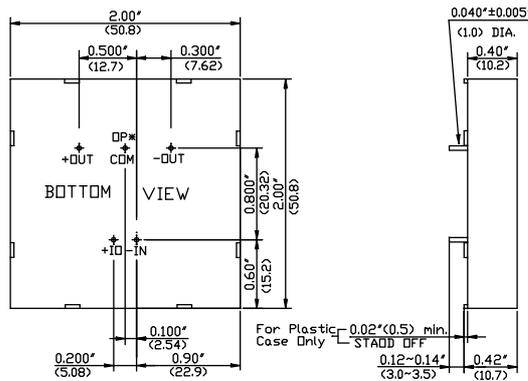
*NP(NO PIN)ON SINGLE OUTPUT MODELS
All dimensions in inches(mm)
Tolerances .xx =± 0.02
          .xxx =± 0.010

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