MU-2W SERIES

2W UNREGULATED

AvivEnergy tech ltd.

FEATURES

- SINGLE IN LINE PACKAGE
- UP TO 2W UNREGULATED OUTPUT POWER
- 100% BURN IN
- HIGH EFFICIENCY
- INTERNAL SMD TECHNOLOGY
- LOW COST
- NO HEATSINK REQUIRED
- UL 94V-0 PACKAGE MATERIAL
- CUSTOM SOLUTIONS AVAILABLE
- RoHS COMPLIANT

RoHS COMPLIANT

OUTPUT SPECIFICATIONS

Voltage Set-point Accuracy	+/-2% max
Temperature Coefficient	+/-0.05%/°C
Ripple & Noise(20MHz BW)[1]	100mVp-p max
Line Regulation[2]	+/-1.2% max
Load Regulation[3]	+/-8% max
Minimum Load	10% of Full Load
Short Circuit Protection	Momentary

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40 °C to +71 °C
Storage Temperature	-55 °C to +125 °C
Humidity	95% max
Cooling	Free-Air Convection

INPUT SPECIFICATIONS

Input Voltage Range	+/-10% max
Input Filter	Capacitor Typ
Protection	Fuse Recommended

GENERAL SPECIFICATIONS

Efficiency	77%-85%
Isolation Voltage[4]	1500VDC min
Isolation Resistance	10^9 ohms min
Isolation Capacitance	80pF max
Switching Frequency	100KHz min
MTBF[5]	>1,700,000 Hours
Weight	1.3g Typ
Case Material	Non-Conductive Plastic
Case Size	11.7mm*7.5mm*10.1mm
Conducted Emissions	EN55022 Class A
Radiated Emissions	EN55022 Class B

ALL SPECIFICATIONS TYPICAL AT NOMINAL LINE, FULL LOAD AND 25 °C UNLESS OTHERWISE NOTED.

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[1] *Measured with 1uF ceramic capacitor connects to the output pins.*
[2] *Line Regulation is for a 1.0% change in input Voltage.*
[3] *Load Regulation is for output load current change from 20% to 100%.*
[4] *For 10 seconds.*
[5] *MIL-HDBK-217F @25 °C , Ground Benign.*

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● SELECTION GUIDE
2W OUTPUT

MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT[6] CURRENT(mA)		EFF (%)[7]	ISOLATION (VDC)
				FULL LOAD	NO LOAD		
MUS-0505-2W	5	5	400	520	55	77	1500
MUS-0512-2W	5	12	167	500	40	80	1500
MUS-0515-2W	5	15	133	488	40	82	1500
MUS-1205-2W	12	5	400	214	15	78	1500
MUS-1212-2W	12	12	167	207	15	81	1500
MUS-1215-2W	12	15	133	196	15	85	1500
MUS-2405-2W	24	5	400	107	15	78	1500
MUS-2412-2W	24	12	167	103	10	81	1500
MUS-2415-2W	24	15	133	108	14	77	1500

Note: Other input to output voltages may be available. Please contact factory.

[6] *NOMINAL INPUT VOLTAGE.*
[7] *NOMINAL INPUT VOLTAGE, FULL LOAD.*

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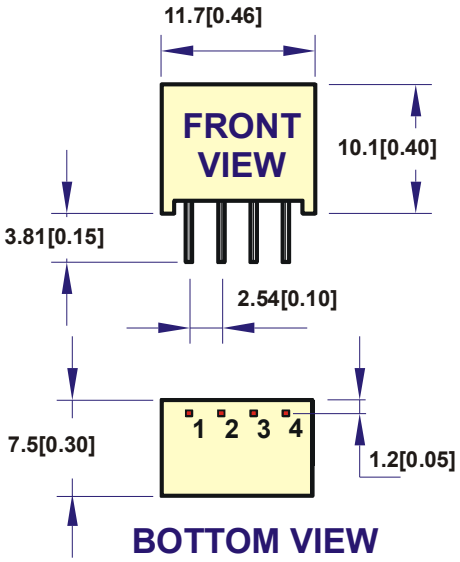
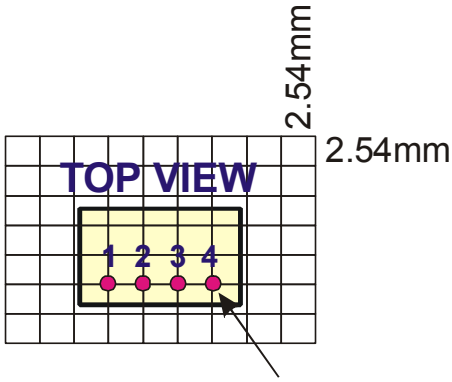
MECHANICAL DIMENSIONS



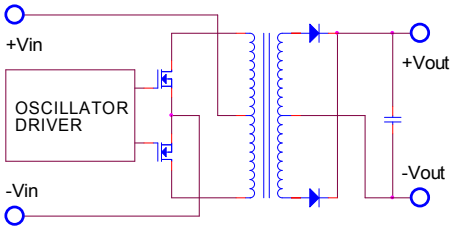
PIN	SINGLE
1	-Vin
2	+Vin
3	-Vout
4	+Vout

All dimensions are in mm[inches]

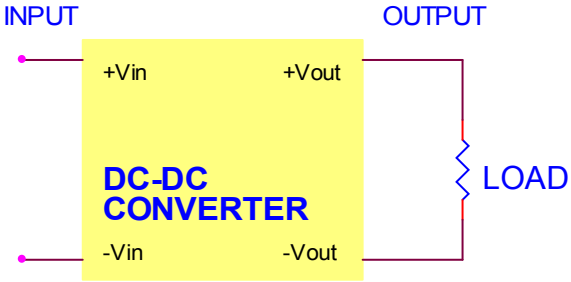
RECOMMENDED FOOTPRINT DETAILS



SIMPLIFIED SCHEMATIC



TYPICAL APPLICATIONS



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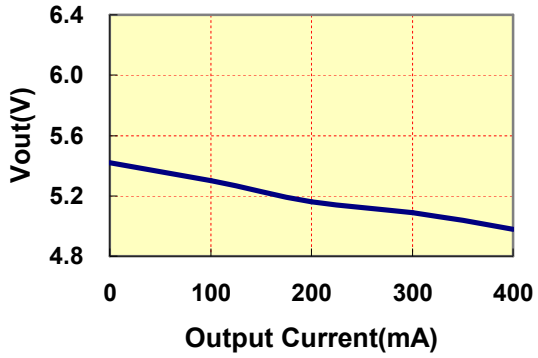
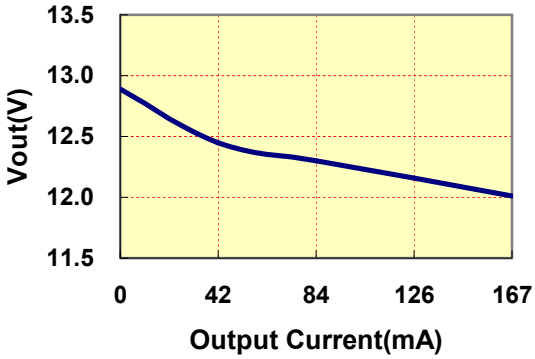
● TYPICAL PERFORMANCE CURVES

Specifications typical at TA=25℃,nominal input voltage , rated output current unless otherwise specified.

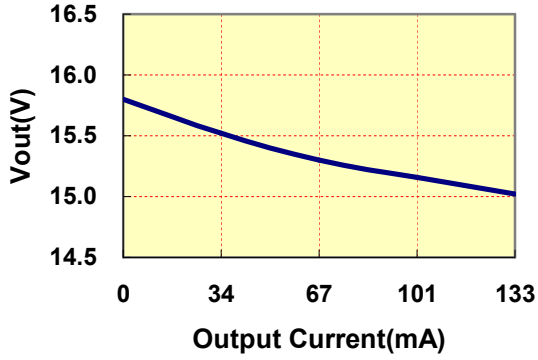
VOUT VS LOAD(5Vout Models)



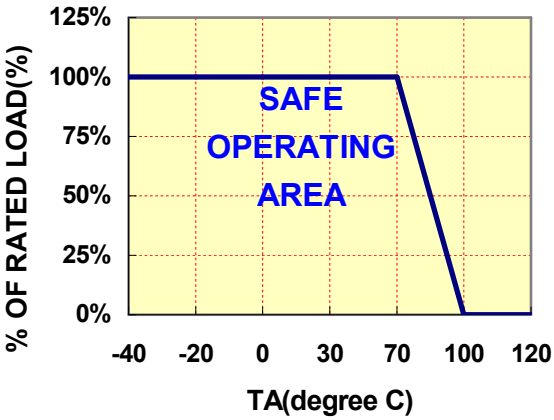
VOUT VS LOAD(12Vout Models)



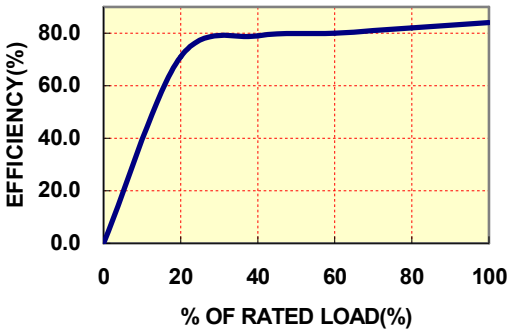
VOUT VS LOAD(15Vout Models)



DERATING CURVE



EFFICIENCY VS LOAD



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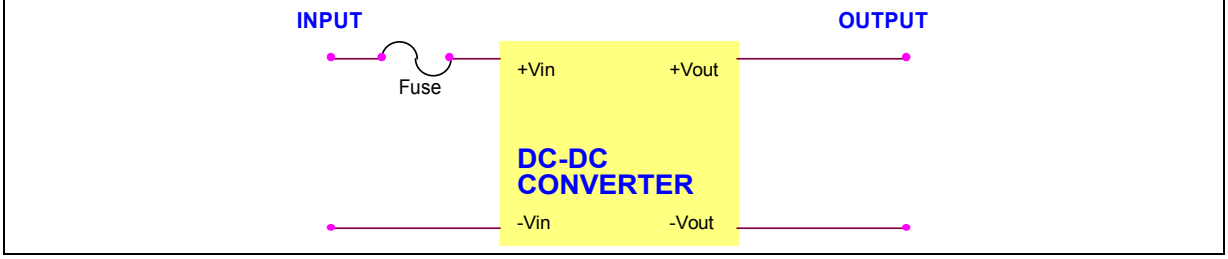
● INPUT FUSE SELECTION GUIDE

4.5-5.5V INPUT VOLTAGE(VDC)	10.8-13.2V INPUT VOLTAGE(VDC)	21.6-26.4V INPUT VOLTAGE(VDC)
1500mA Slow-Blow Type	600mA Slow-Blow Type	300mA Slow-Blow Type



Note: Certain applications may require the installation of external fuse in front of the input.

MU-2W SERIES APPLICATION NOTES:

EXTERNAL CAPACITANCE REQUIREMENTS:

Output filtering is required for operation. A minimum of 10uF is needed. Output capacitance may be increased for additional filtering, not to exceed 220uF.

To meet the reflected ripple requirements of the converter, an input impedance of less than 0.5ohm from DC to 250KHz is required.

We Can Offer EMC-Filter According To EN55011/22 Class B.

Negative Outputs:

A negative output voltage may be obtained by connecting the +OUT to circuit ground and connecting –OUT as the negative output.

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