PU-S SERIES

1W UNREGULATED

AvivEnergy tech ltd.

FEATURES

- CONTINOUS SHORT CIRCUIT PROTECTION
- SINGLE IN LINE PACKAGE
- 100% BURN IN
- HIGH EFFICIENCY
- INTERNAL SMD TECHNOLOGY
- NO HEATSINK REQUIRED
- UL 94V-0 PACKAGE MATERIAL
- RoHS COMPLIANT

RoHS COMPLIANT

OUTPUT SPECIFICATIONS

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

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40°C to +85°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	74%-83%
Isolation Voltage[3]	3000 VDC min
Isolation Resistance	10^9 ohms min
Isolation Capacitance	20pF max
Switching Frequency	100KHz max
MTBF[4]	>2,000,000 Hours
Weight	2.1g Typ
Case Material	Non-Conductive Plastic
Case Size	19.6mm*7.5mm*10.2mm
Conducted Emissions	EN55022 Class A
Radiated Emissions	EN55022 Class A

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

[1] *Line Regulation is for a 1.0% change in input Voltage.*
[2] *Load Regulation is for output load current change from 20% to 100%.*
[3] *1500VDC for 10 seconds,3000VDC for 3 seconds.*
[4] *MIL-HDBK-217F @25 °C , Ground Benign.*

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SELECTION GUIDE

MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT[5] CURRENT(mA)		EFF (%)[6]	ISOLATION (VDC)	PACKAGE
				FULL LOAD	NO LOAD			
PUS-0505BS	5	5	200	256	38	78	3000	B
PUS-0509BS	5	9	111	253	38	79	3000	B
PUS-0512BS	5	12	84	253	39	79	3000	B
PUS-0515BS	5	15	67	251	39	80	3000	B
PUD-0505BS	5	+/-5	+/-100	256	40	78	3000	B
PUD-0512BS	5	+/-12	+/-42	253	40	79	3000	B
PUD-0515BS	5	+/-15	+/-34	251	40	80	3000	B
PUS-1205BS	12	5	200	108	15	77	3000	B
PUS-1209BS	12	9	111	105	15	79	3000	B
PUS-1212BS	12	12	84	105	14	80	3000	B
PUS-1215BS	12	15	67	103	14	81	3000	B
PUD-1205BS	12	+/-5	+/-100	106	15	78	3000	B
PUD-1212BS	12	+/-12	+/-42	105	14	80	3000	B
PUD-1215BS	12	+/-15	+/-34	103	14	81	3000	B
PUS-2405BS	24	5	200	54	8	77	3000	B
PUS-2409BS	24	9	111	53	7	78	3000	B
PUS-2412BS	24	12	84	53	7	79	3000	B
PUS-2415BS	24	15	67	52	7	80	3000	B
PUD-2405BS	24	+/-5	+/-100	53	8	78	3000	B
PUD-2412BS	24	+/-12	+/-42	53	7	79	3000	B
PUD-2415BS	24	+/-15	+/-34	53	7	80	3000	B

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

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

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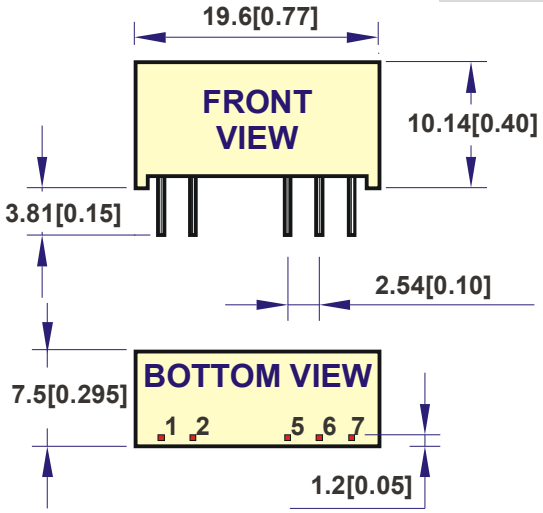
MECHANICAL DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS

PACKAGE "B"

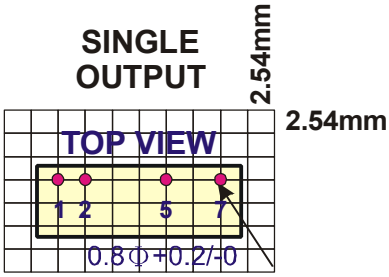


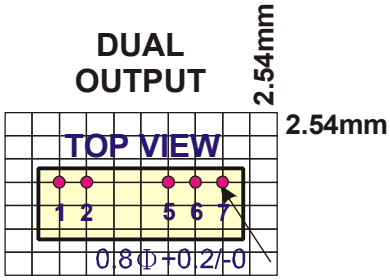
PIN	SINGLE	DUAL
1	+Vin	+Vin
2	-Vin	-Vin
5	-Vout	-Vout
6	NP	COMMON
7	+Vout	+Vout

NOTE : All Dimensions In mm(Inches)

1. Pin Size is 0.50x0.30mm[0.02x0.01"]
2. Pin is Tolerance .XX= ±0.05mm
3. Tolerance .X or .XX= ±0.5mm

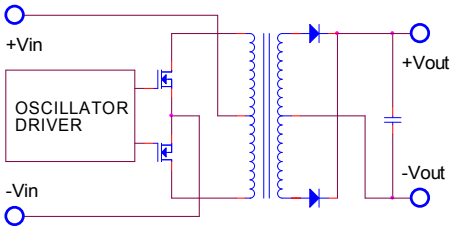
All dimensions are in mm[inches]



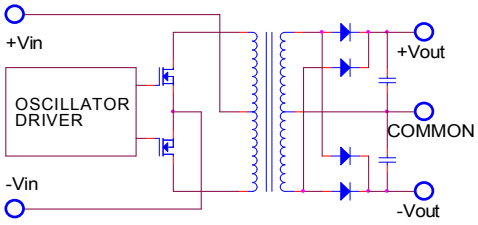


SIMPLIFIED SCHEMATIC

SINGLE OUTPUT

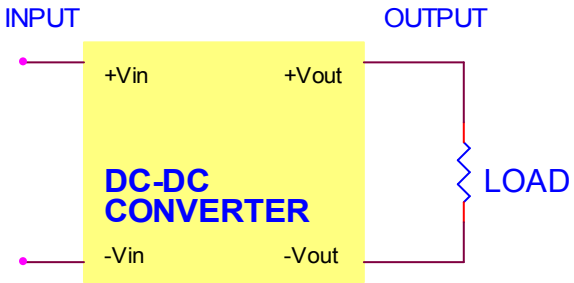


DUAL OUTPUT

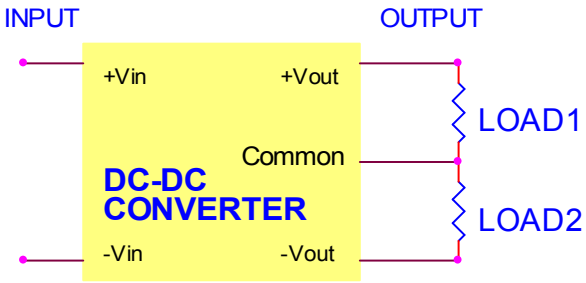


TYPICAL APPLICATIONS

SINGLE OUTPUT



DUAL OUTPUT



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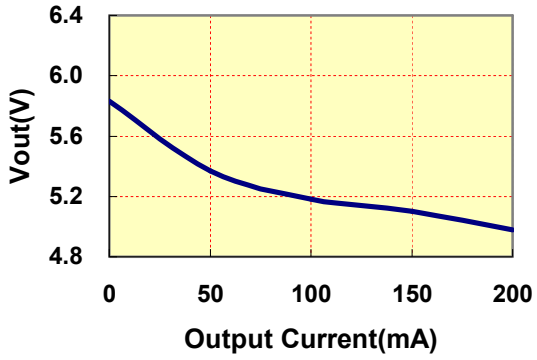
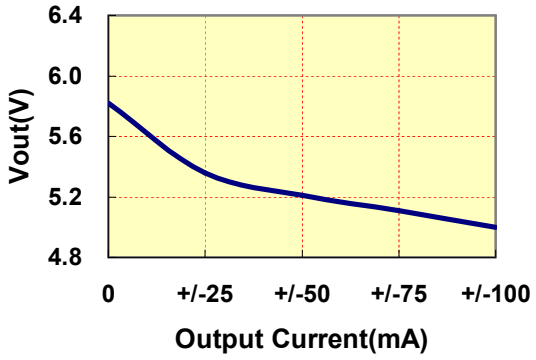
● TYPICAL PERFORMANCE CURVES

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

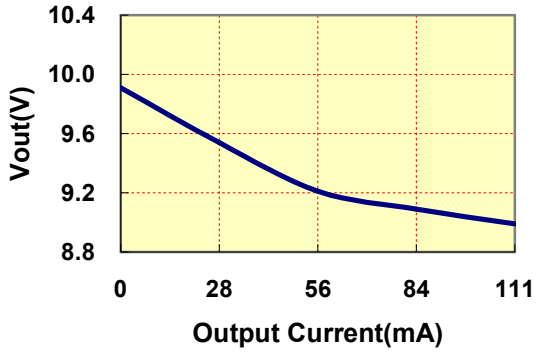
VOUT VS LOAD(5Vout Models)



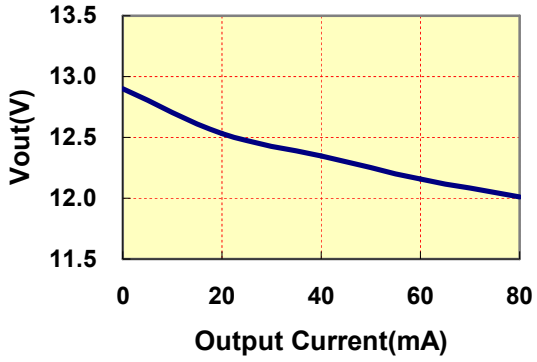
VOUT VS LOAD(+/-5Vout Models)



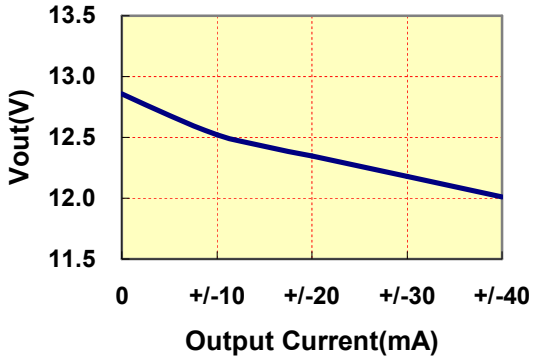
VOUT VS LOAD(9Vout Models)



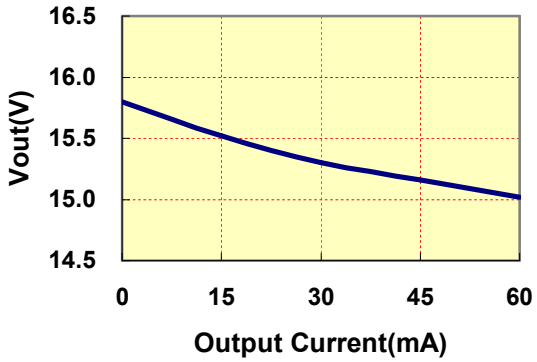
VOUT VS LOAD(12Vout Models)



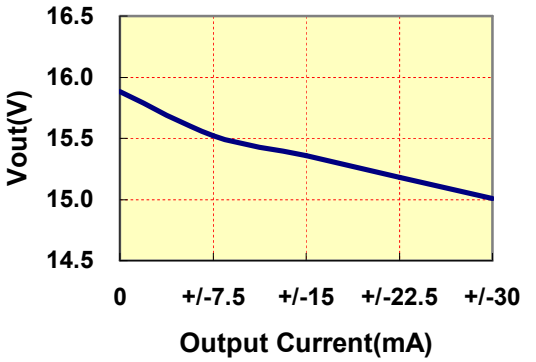
VOUT VS LOAD(+/- 12Vout Models)



VOUT VS LOAD(15Vout Models)



VOUT VS LOAD(+/- 15Vout Models)



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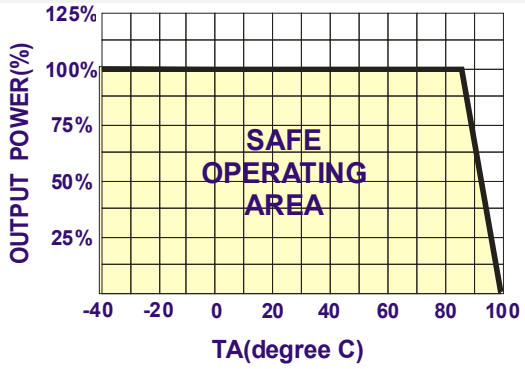
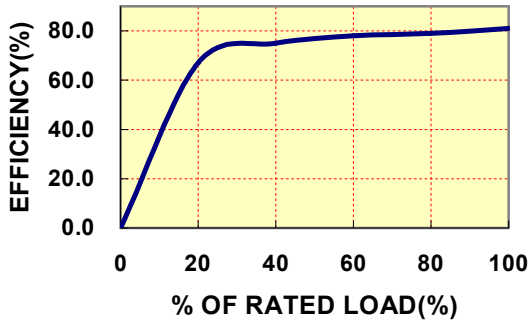
DERATING CURVE

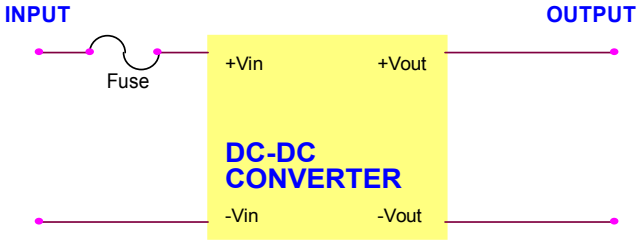


EFFICIENCY VS LOAD



● 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)
800mA Slow-Blow Type	300mA Slow-Blow Type	150mA Slow-Blow Type



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

PU-S 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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