PU-3 SERIES

3W UNREGULATED

DANUBE

FEATURES

- SINGLE IN LINE PACKAGE
- 3W 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
- 3 YEARS WARRANTY

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	(OUTPUT=3.3V&5V)	-40°C to +80 °C
Operating Temperature		-40°C to +85 °C
Case Temperature		+110 °C max.
Storage Temperature		-55 °C to +125 °C
Humidity		95% max.
Cooling		Free-Air Convection

INPUT SPECIFICATIONS

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

GENERAL SPECIFICATIONS

Efficiency		86% max.
Isolation Voltage[4]	3000 VDC min.	Standard Models
Isolation Resistance		10^9 ohms min.
Isolation Capacitance		80pF max.
Switching Frequency		60KHz typ.
MTBF[5]		>1,800,000 Hours
Weight		2.9g typ.
Case Material		Non-Conductive Plastic
Case Size		19.6mm*7.5mm*10.2mm
Radiated Emissions		EN55032 Class B

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

[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] *3000VDC for 3 seconds.*
[5] *MIL-HDBK-217F @25 °C , Ground Benign.*

SELECTION GUIDE
3W OUTPUT

MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT[6] CURRENT(mA)		EFF (%)[7]	ISOLATION (VDC)	PACKAGE
				FULL LOAD	NO LOAD			
PUS-03.305B3	3.3	5	600	1136	80	80	3000	B
PUS-0503.3B3	5	3.3	800	660	68	80	3000	B
PUS-0505B3	5	5	600	731	68	82	3000	B
PUS-0509B3	5	9	333	706	68	85	3000	B
PUS-0512B3	5	12	250	706	68	85	3000	B
PUS-0515B3	5	15	200	698	68	86	3000	B
PUD-0505B3	5	+/-5	+/-300	731	68	82	3000	B
PUD-0509B3	5	+/-9	+/-167	706	68	85	3000	B
PUD-0512B3	5	+/-12	+/-125	706	68	85	3000	B
PUD-0515B3	5	+/-15	+/-100	698	68	86	3000	B
PUS-1205B3	12	5	600	305	28	82	3000	B
PUS-1209B3	12	9	333	294	28	85	3000	B
PUS-1212B3	12	12	250	294	28	85	3000	B
PUS-1215B3	12	15	200	287	28	86	3000	B
PUD-1205B3	12	+/-5	+/-300	305	28	82	3000	B
PUD-1209B3	12	+/-9	+/-167	294	28	85	3000	B
PUD-1212B3	12	+/-12	+/-125	294	28	85	3000	B
PUD-1215B3	12	+/-15	+/-100	287	28	86	3000	B
PUS-2405B3	24	5	600	152	15	82	3000	B
PUS-2409B3	24	9	333	147	15	85	3000	B
PUS-2412B3	24	12	250	147	15	85	3000	B
PUS-2415B3	24	15	200	144	15	86	3000	B
PUD-2405B3	24	+/-5	+/-300	152	15	82	3000	B
PUD-2409B3	24	+/-9	+/-167	147	15	85	3000	B
PUD-2412B3	24	+/-12	+/-125	147	15	85	3000	B
PUD-2415B3	24	+/-15	+/-100	144	15	86	3000	B

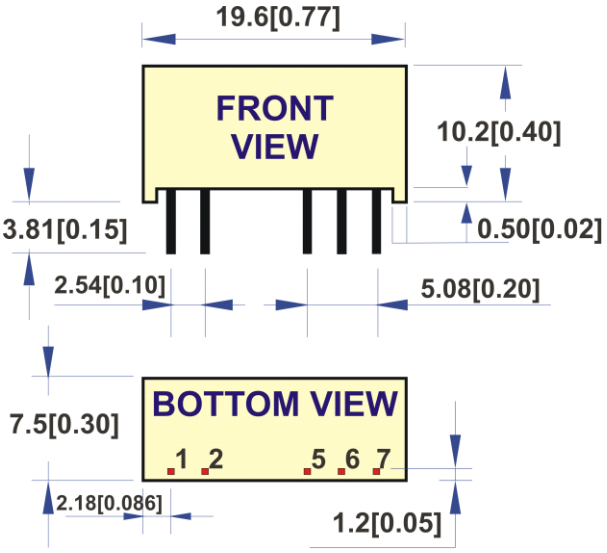
Note: Other input to output voltages may be available. Please contact factory.

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

● PART NUMBES STRUCTURE

Model Name	Difference
PUv-x1x2x3x4 PUv-x1x2x3x4x5-zzz	P=Series Name U=Unregulated v=Type of output voltage (S=Single output；D=Dual output) x1=Input voltage (03.3~4.5V；05~8.5V；09~11.5V；12~14.5V；15~18V；19~24V) x2=Output voltage (03.3~4.5V；05~8.5V；09~11.5V；12~14.5V；15~18V；19~24V) x3=Difference Package X4=Type of output power X5=Function zzz= 0~9，A~Z or blank for market purpose

MECHANICAL DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS PACKAGE "B"

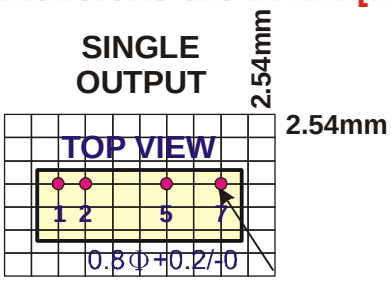


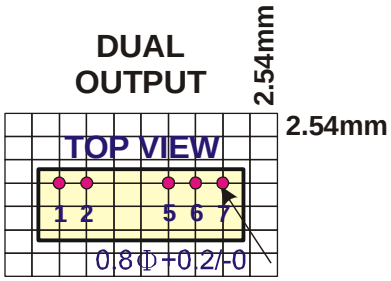
PIN	SINGLE	DUAL
1	+Vin	+Vin
2	-Vin	-Vin
5	-Vout	-Vout
6	NP	COMMON
7	+Vout	+Vout

NOTE : All dimensions are 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

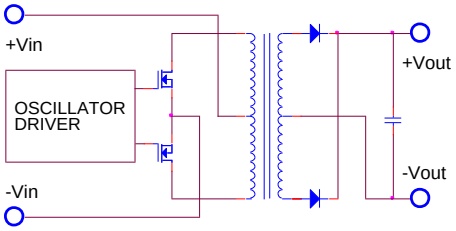
All dimensions are in mm[inches]



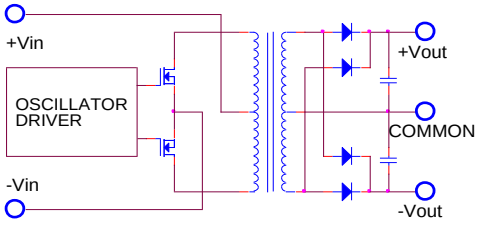


SIMPLIFIED SCHEMATIC

SINGLE OUTPUT

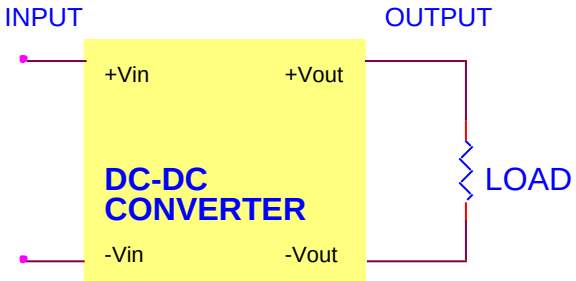


DUAL OUTPUT

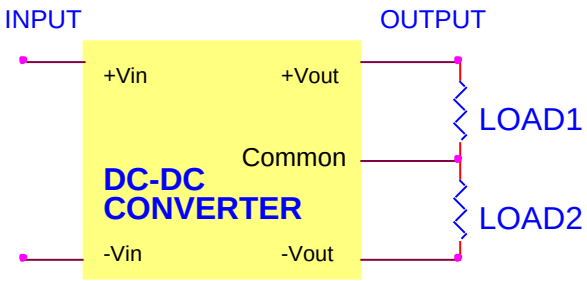


TYPICAL APPLICATIONS

SINGLE OUTPUT



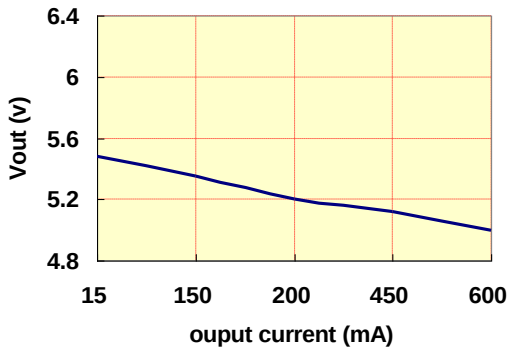
DUAL OUTPUT



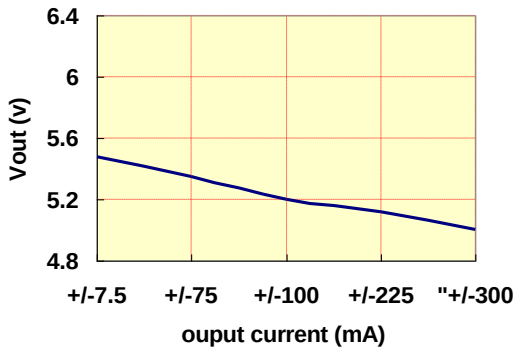
TYPICAL PERFORMANCE CURVES

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

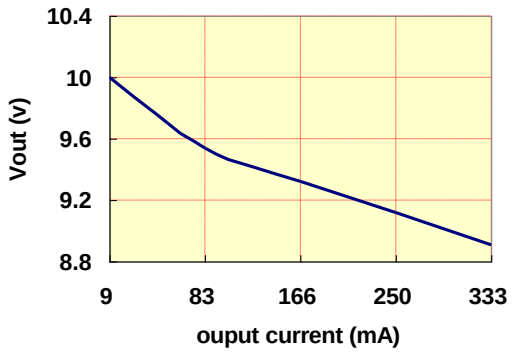
VOUT VS LOAD(5Vout Models)



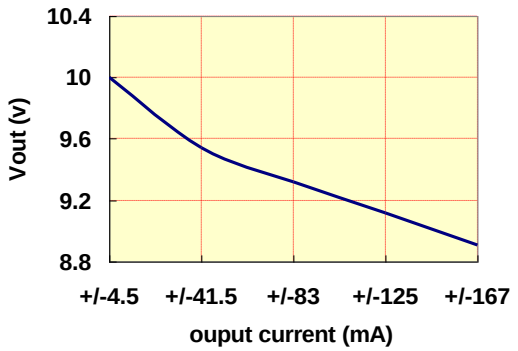
VOUT VS LOAD(+/-5Vout Models)



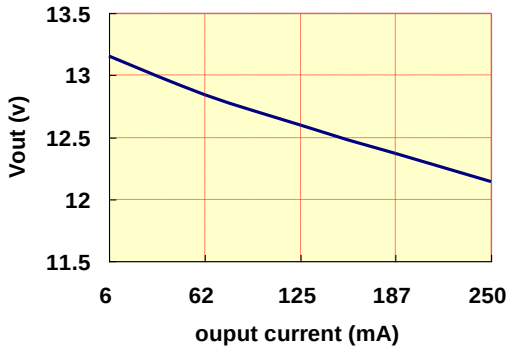
VOUT VS LOAD(9Vout Models)



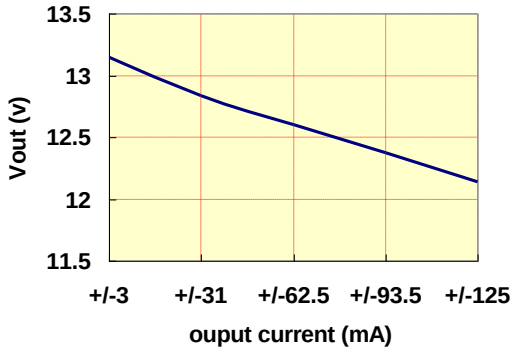
VOUT VS LOAD(+/-9Vout Models)



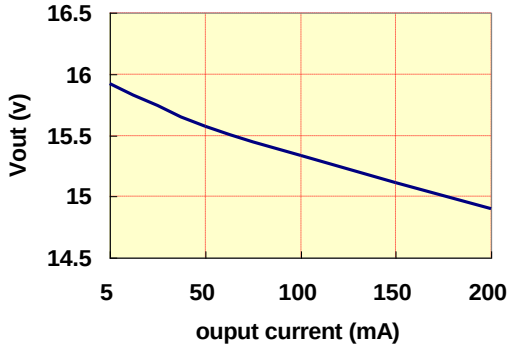
VOUT VS LOAD(12Vout Models)



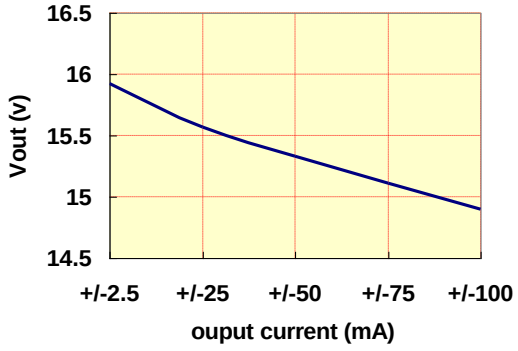
VOUT VS LOAD(+/-12Vout Models)



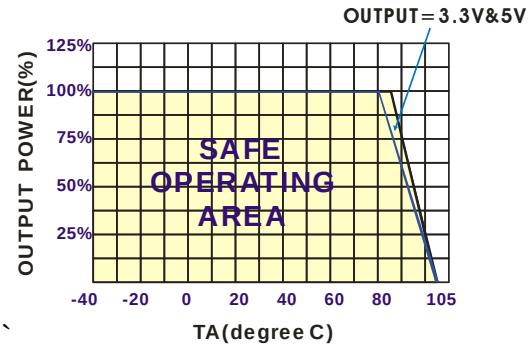
VOUT VS LOAD(15Vout Models)



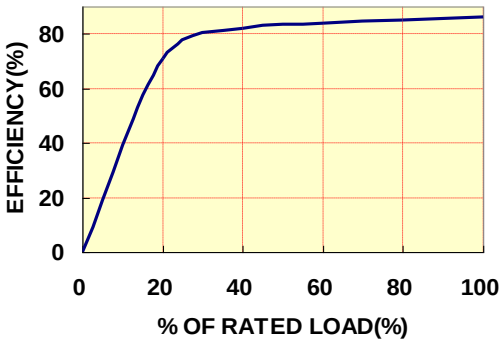
VOUT VS LOAD(+/-15Vout Models)



DERATING CURVES

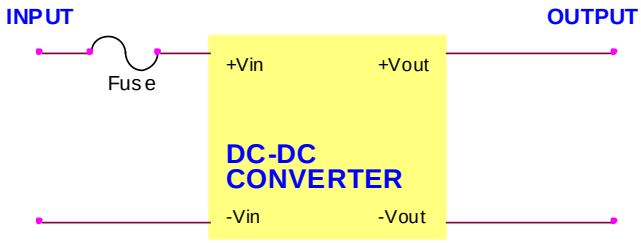


EFFICIENCY VS LOAD



● 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)
1800mA Slow-Blow Type	750mA Slow-Blow Type	400mA Slow-Blow Type



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

PU-3 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 EN55032 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.

FOR MORE INFORMATION CALL:

Danube Enterprise Co., Ltd.

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Home Page **http://www.danube.com.tw**