

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

INPUT SPECIFICATIONS

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

GENERAL SPECIFICATIONS

Efficiency	80%-87%	
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	

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature (OUTPUT=5V)	-40°C to +80 °C
Operating Temperature (OUTPUT=12V&15V)	-40°C to +85 °C
Storage Temperature	-55 °C to +125 °C
Humidity	95% max
Cooling	Free-Air Convection

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(1) 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-0505B3	5			
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
PUS-1205B3	12	5	600	305	28	83	3000	B
PUS-1209B3	12	9	333	294	28	85	3000	B
PUS-1212B3	12	12	250	294	28	86	3000	B
PUS-1215B3	12	15	200	287	28	86	3000	B
PUS-2405B3	24	5	600	152	15	83	3000	B
PUS-2409B3	24	9	333	147	15	85	3000	B
PUS-2412B3	24	12	250	147	15	86	3000	B
PUS-2415B3	24	15	200	144	15	88	3000	B

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

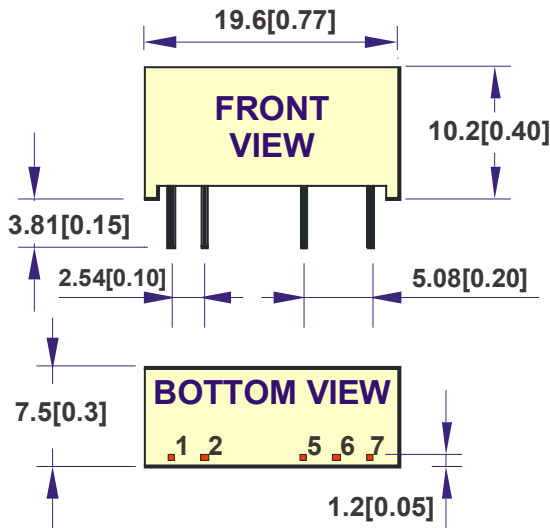
● PARTNUMBERS STRUCTURE

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

⁶ NOMINAL INPUT VOLTAGE.

⁷ NOMINAL INPUT VOLTAGE, FULL LOAD.

MECHANICAL DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS



PIN	SINGLE
1	+Vin
2	-Vin
5	-Vout
7	+Vout

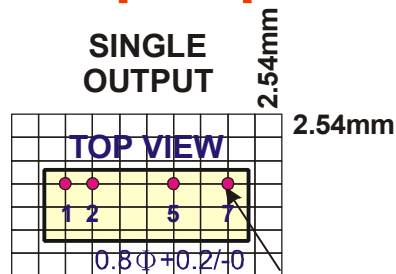
NOTE : All Dimensions In mm(Inches)

1. PinSize is 0.50x0.30mm[0.02x0.01"]

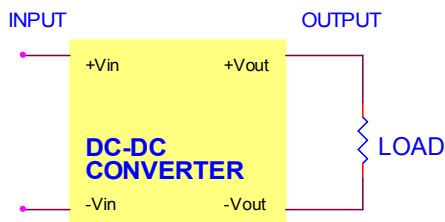
2. Pin is Tolerance .XX= ±0.05mm

3. Tolerance .X or .XX= ±0.5mm

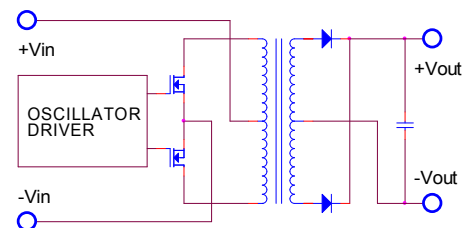
All dimensions are in mm[inches]



SIMPLIFIED SCHEMATIC SINGLE OUTPUT



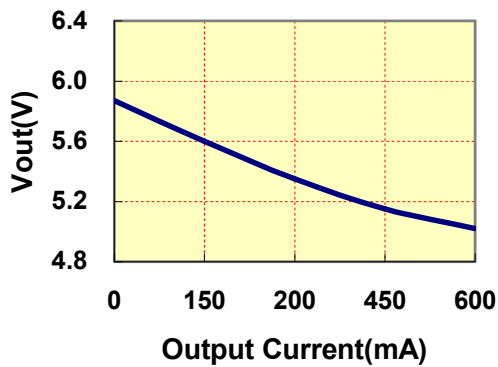
TYPICAL APPLICATIONS SINGLE OUTPUT



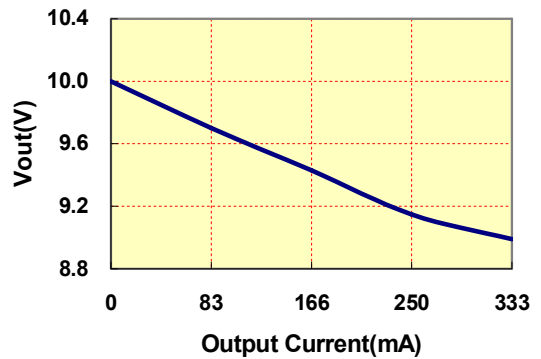
TYPICAL PERFORMANCE CURVES

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

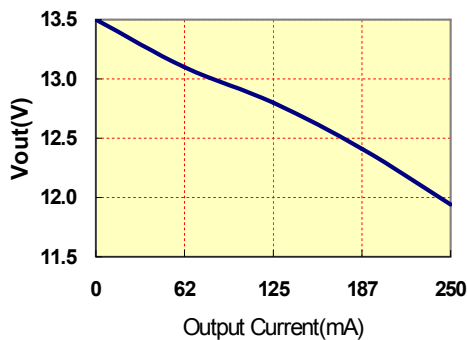
VOUT VS LOAD(5Vout Models)



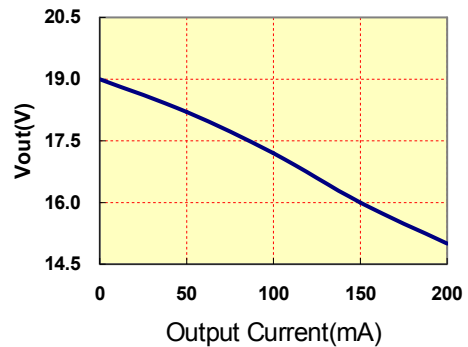
VOUT VS LOAD(9Vout Models)



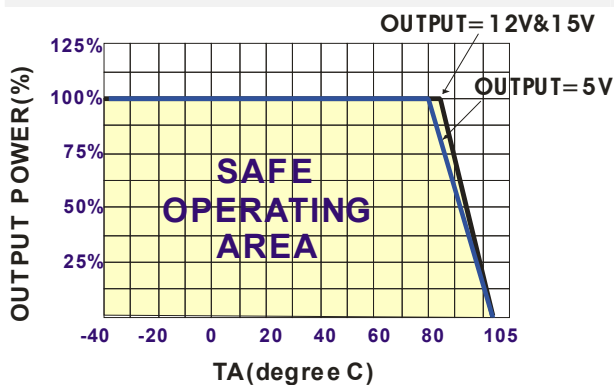
VOUT VS LOAD(12Vout Models)



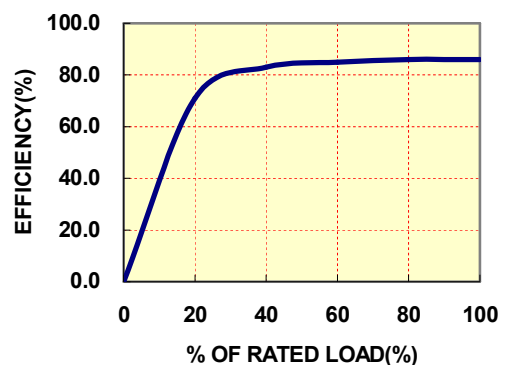
VOUT VS LOAD(15Vout Models)



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

The diagram shows a yellow rectangular block labeled 'DC-DC CONVERTER'. On the left side, there are two terminals: '+Vin' (top) and '-Vin' (bottom). On the right side, there are two terminals: '+Vout' (top) and '-Vout' (bottom). A fuse is connected in series with the '+Vin' terminal. The input side is labeled 'INPUT' and the output side is labeled 'OUTPUT'.

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 10 μ F is needed. Output capacitance may be increased for additional filtering, not to exceed 220 μ F.

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.

FOR MORE INFORMATION CALL:

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Home Page

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