

DC-DC Converter UNIT

PU-S SERIES (1 W UNREGULATED)

FEATURES

- Single in line package
- 100% Burned in
- High Efficiency
- Continuous short circuit protection
- Internal SMD Technology
- No heatsink required
- UL 94V-0 Package material
- RoHS compliant
- 3 Years warranty



OUTPUT SPECIFICATIONS

Voltage Set point Accuracy	+/-2% max
Temperature Coefficient	+/-0.05%/ °C
Ripple & Noise (20MHz BW)	100mVp-p max
Line Regulation ¹	+/-0.1.2% max
Load Regulation ²	+/-8% max
Minimum Load	20% of Full Load
Short Circuit Protection	Continuous
Short circuit Restart	Automatic

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	100 KHz min
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

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-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] 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(1) 1W 1000VDC ISOLATION

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-0505G1S	5	5	200	256	34	78	3000	G
PUS-0509G1S	5	9	111	253	33	79	3000	G
PUS-0512G1S	5	12	84	253	33	79	3000	G
PUS-0515G1S	5	15	67	251	33	80	3000	G
PUD0505G1S	5	+/-5	+/-100	256	34	78	3000	G
PUD0512G1S	5	+/-12	+/-42	253	33	79	3000	G
PUD0505G1S	5	+/-15	+/-34	251	33	80	3000	G
PUS-1205G1S	12	5	200	108	14	77	3000	G
PUS-1209G1S	12	9	111	105	13	79	3000	G
PUS-1212G1S	12	12	84	105	13	80	3000	G
PUS-1215G1S	12	15	67	103	13	81	3000	G
PUD-1205G1S	12	+/-5	+/-100	106	14	78	3000	G
PUD-1212G1S	12	+/-12	+/-42	105	13	80	3000	G
PUD-1215G1S	12	+/-15	+/-34	103	13	81	3000	G
PUS-2405G1S	24	5	200	54	8	77	3000	G
PUS-2409G1S	24	9	111	53	7	78	3000	G
PUS-2412G1S	24	12	84	53	7	79	3000	G
PUS-2415G1S	24	15	67	52	7	80	3000	G
PUD-2405G1S	24	+/-5	+/-100	53	8	78	3000	G
PUD-2412G1S	24	+/-12	+/-42	53	7	79	3000	G
PUD-2415G1S	24	+/-15	+/-34	53	7	80	3000	G

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

[5] NOMINAL INPUT VOLTAGE.

[6] NOMINAL INPUT VOLTAGE, FULL LOAD.

[6] NOMINAL INPUT VOLTAGE.

[7] NOMINAL INPUT VOLTAGE, FULL LOAD.

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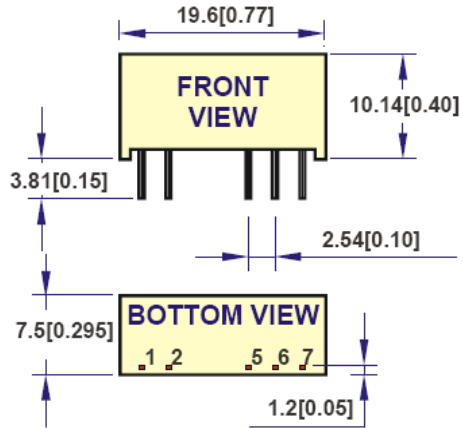
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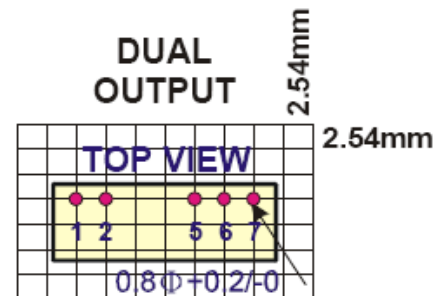
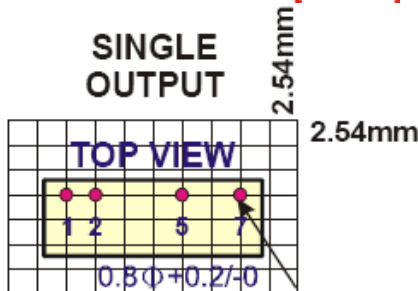
MECHANICAL DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS



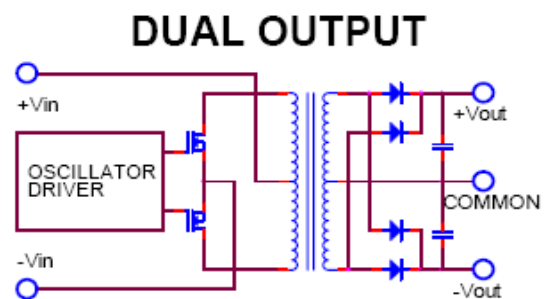
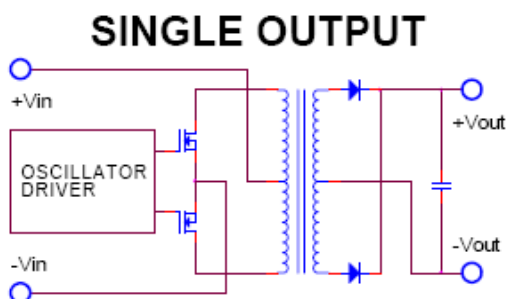
PACKAGE „G“

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

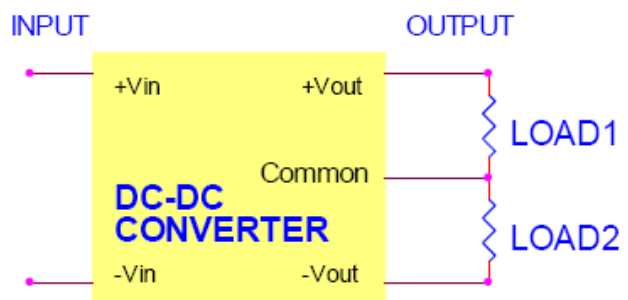
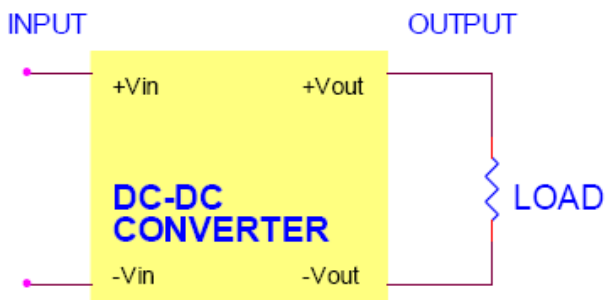
All dimensions are in mm[inches]



SIMPLIFIED SCHEMATIC



TYPICAL APPLICATIONS



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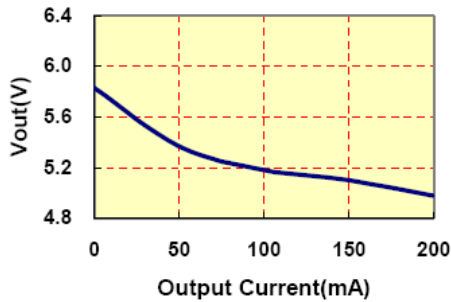
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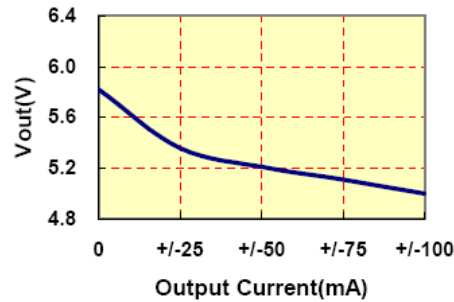
TYPICAL PERFORMANCE CURVES

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

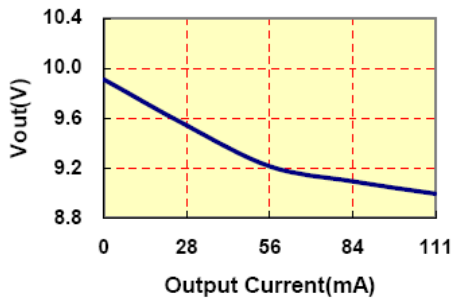
VOUT VS LOAD(5Vout Models)



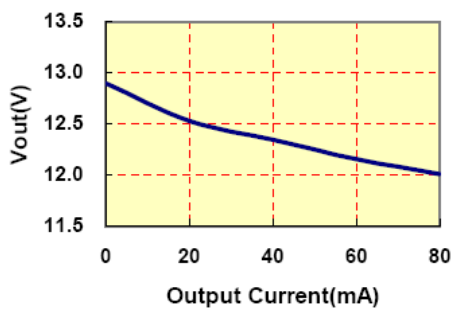
VOUT VS LOAD(+/-5Vout Models)



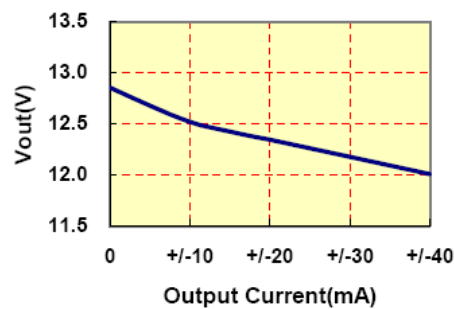
VOUT VS LOAD(9Vout Models)



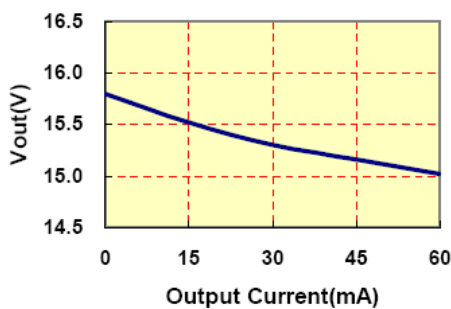
VOUT VS LOAD(12Vout Models)



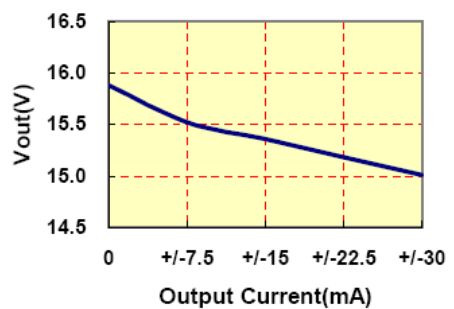
VOUT VS LOAD(+/- 12Vout Models)



VOUT VS LOAD(15Vout Models)



VOUT VS LOAD(+/- 15Vout Models)



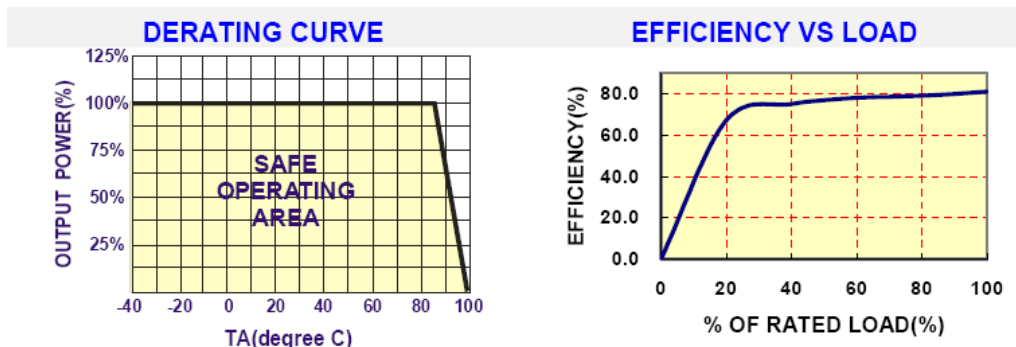
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INPUT FUSE SELECTION GUIDE

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 0.5 ohm from DC to 250 KHz 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.

[10] NOMINAL INPUT VOLTAGE.
[11] NOMINAL INPUT VOLTAGE, FULL LOAD.

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