

DU SERIES

5W UNREGULATED

DANUBE

FEATURES

- DUAL IN LINE PACKAGE
- UP TO 5W UNREGULATED OUTPUT POWER
- NO EXTERNAL COMPONENTS REQUIRED
- 100% BURNED IN
- HIGH EFFICIENCY
- UL 94V-0 PACKAGE MATERIAL
- CUSTOM SOLUTIONS AVAILABLE
- RoHS COMPLIANT
- 3 YEARS WARRANTY



OUTPUT SPECIFICATIONS

Voltage Setpoint Accuracy	+/-3% 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	10% of Full Load
Short Circuit Protection	Momentary
Short Circuit Restart	Automatic
Transient Response ⁴	200uS max

INPUT SPECIFICATIONS

Input Voltage Range	+/-10% max
Input Filter	Pi Network
Protection	Fuse Recommended

GENERAL SPECIFICATIONS

Efficiency	79%-90%
Isolation Voltage ³	1500VDC min
Isolation Resistance	10 ⁹ ohms min
Isolation Capacitance	80pF max
Switching Frequency	50 KHz min
MTBF ⁵	>850,000 Hours
Weight	11.5g-14.4g
Case Material	Non-Conductive Plastic
Case Size	25.03mm*23.5mm*10.2mm
Potting Material	Epoxy(UL94-V0)
Conducted Emissions	EN55022 Class A
Radiated Emissions	EN55022 Class A

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-25°C to +71°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 10% to 100%.

³ For 10 seconds.

⁴ 25% Step Load Change.

⁵ MIL-HDBK-217F @25°C, Ground Benign.

● **SELECTION GUIDE**
5W OUTPUT

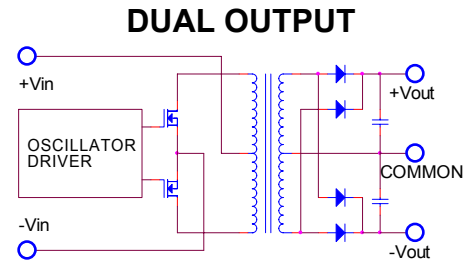
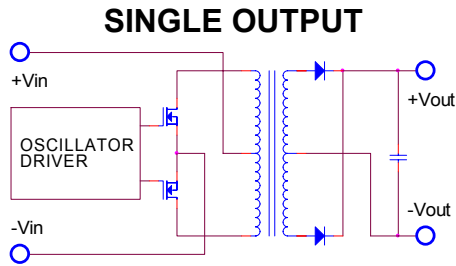
MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT ⁶		EFF (%) ⁷	ISOLATION (VDC)
				CURRENT(mA)			
				FULL LOAD	NO LOAD		
DUS-0503.3	5	3.3	1500	1270	80	78	1500
DUS-0505	5	5	1000	1210	80	83	1500
DUS-0509	5	9	556	1210	80	83	1500
DUS-0512	5	12	417	1150	80	87	1500
DUS-0515	5	15	333	1150	80	87	1500
DUS-0524	5	24	208	1152	80	87	1500
DUD-0505	5	+/-5	+/-500	1210	80	83	1500
DUD-0512	5	+/-12	+/-208	1200	130	83	1500
DUD-0515	5	+/-15	+/-167	1150	80	87	1500
DUS-0909	9	9	556	670	65	83	1500
DUS-1203.3	12	3.3	1500	556	40	74	1500
DUS-1205	12	5	1000	496	40	84	1500
DUS-1212	12	12	417	479	40	87	1500
DUS-1215	12	15	333	479	40	87	1500
DUS-1224	12	24	208	482	40	86	1500
DUD-1205	12	+/-5	+/-500	496	40	84	1500
DUD-1212	12	+/-12	+/-208	479	40	87	1500
DUD-1215	12	+/-15	+/-167	479	40	87	1500
DUS-2403.3	24	3.3	1500	280	20	74	1500
DUS-2405	24	5	1000	251	20	83	1500
DUS-2412	24	12	417	245	20	85	1500
DUS-2415	24	15	333	239	20	87	1500
DUS-2424	24	24	208	241	20	86	1500
DUD-2405	24	+/-5	+/-500	251	30	83	1500
DUD-2412	24	+/-12	+/-208	230	20	90	1500
DUD-2415	24	+/-15	+/-167	230	20	90	1500
DUS-4824	48	24	208	125	15	83	1500

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

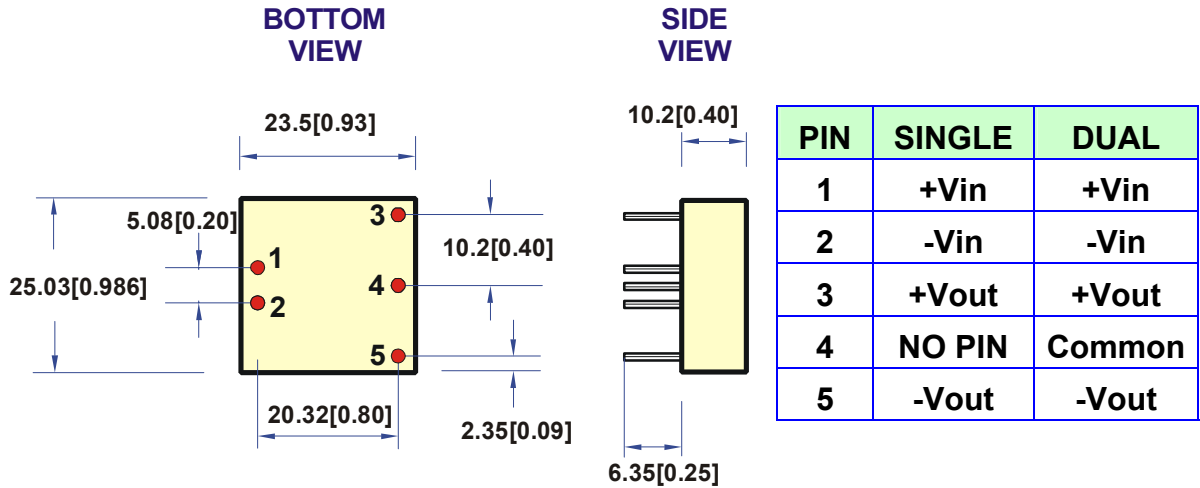
⁶ NOMINAL INPUT VOLTAGE.

⁷ NOMINAL INPUT VOLTAGE, FULL LOAD.

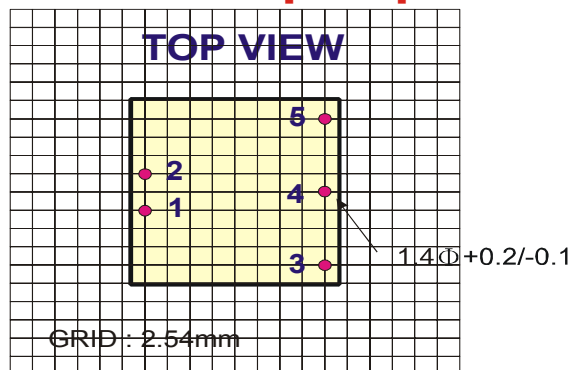
● SIMPLIFIED SCHEMATIC



● MECHANICAL DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS

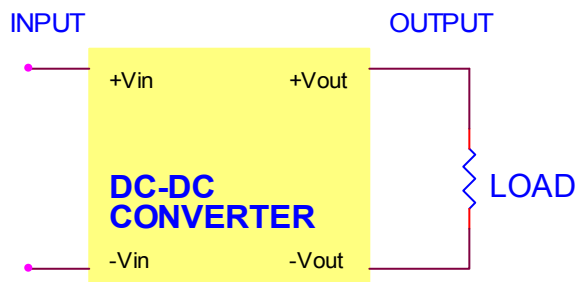


All dimensions are in millimeters[inches]

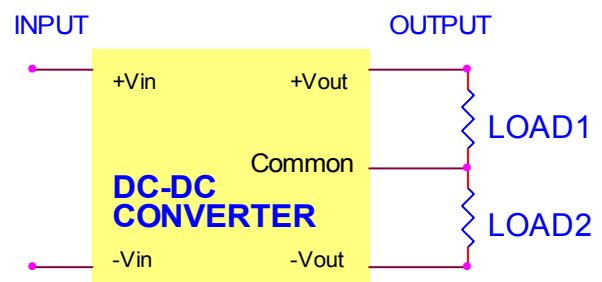


● TYPICAL APPLICATIONS

SINGLE OUTPUT



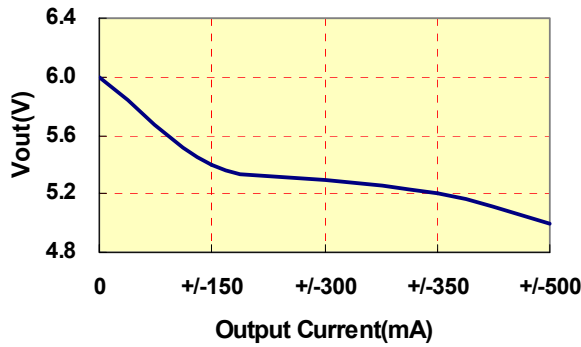
DUAL OUTPUT



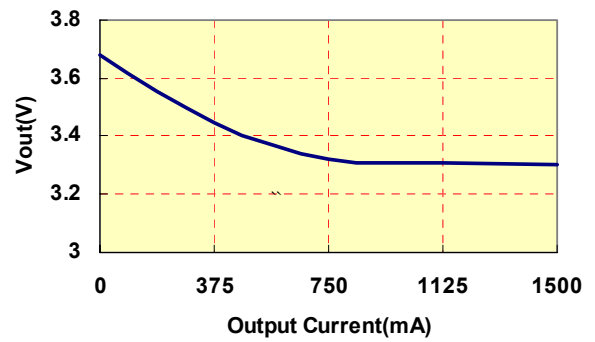
● TYPICAL PERFORMANCE CURVES

Specifications typical at $T_a=25^{\circ}\text{C}$, nominal input voltage , rated output current unless otherwise specified.

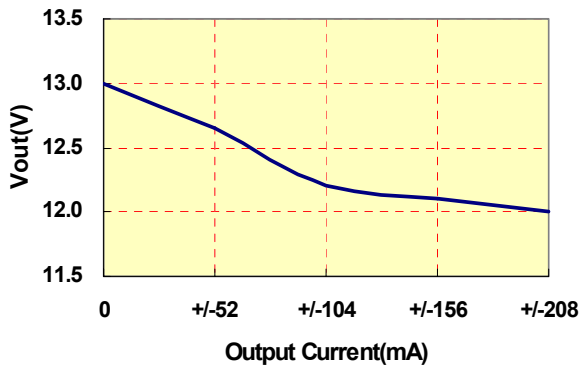
VOUT VS LOAD(+/- 5Vout Models)



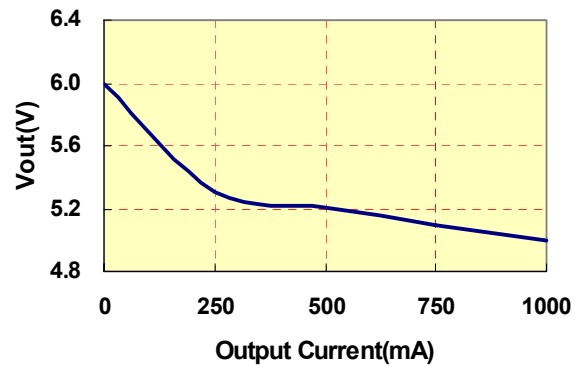
VOUT VS LOAD(3.3Vout Models)



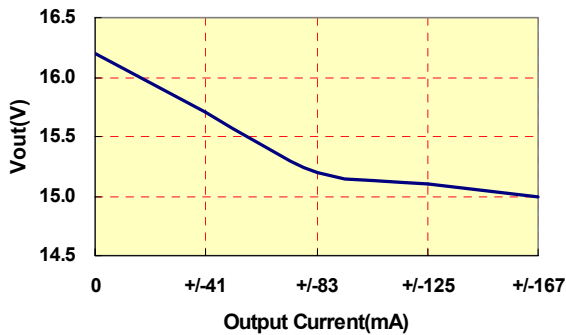
VOUT VS LOAD(+/- 12Vout Models)



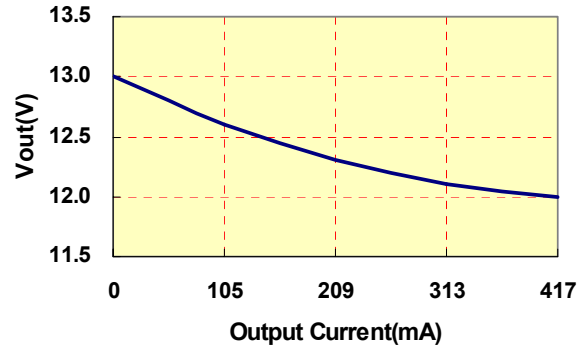
VOUT VS LOAD(5Vout Models)



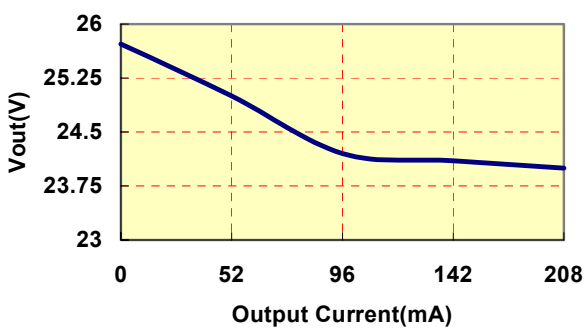
VOUT VS LOAD(+/- 15Vout Models)



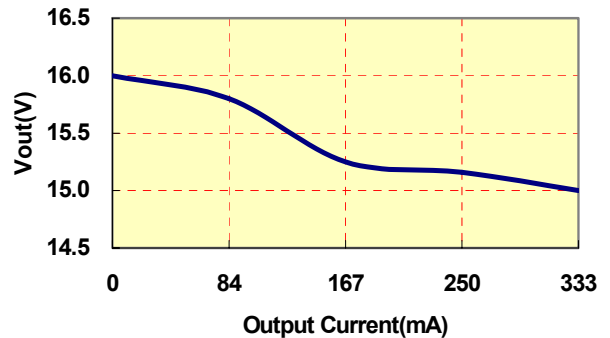
VOUT VS LOAD(12Vout Models)



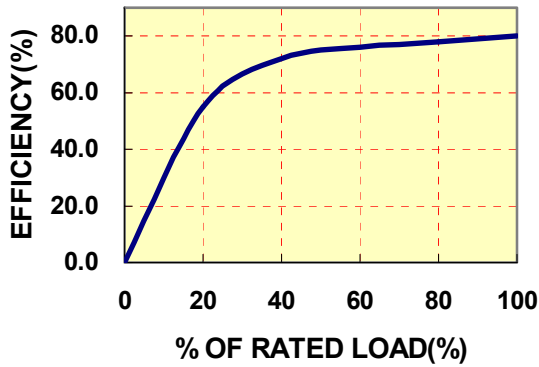
VOUT VS LOAD(24Vout Models)



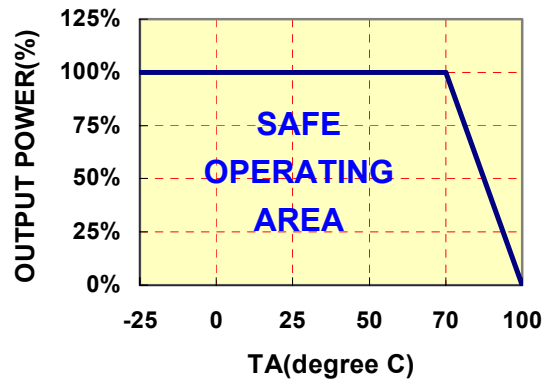
VOUT VS LOAD(15Vout Models)



EFFICIENCY VS LOAD



DERATING CURVE



● INPUT FUSE SELECTION GUIDE

5V	12V	24V	48V
INPUT VOLTAGE(VDC)	INPUT VOLTAGE(VDC)	INPUT VOLTAGE(VDC)	INPUT VOLTAGE(VDC)
2200mA Slow-Blow Type	1000mA Slow-Blow Type	500mA Slow-Blow Type	200mA Slow-Blow Type

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

DU SERIES APPLICATION NOTES:

EXTERNAL CAPACITANCE REQUIREMENTS:

No external capacitance is required for operation of the DU series.

To meet the reflected ripple requirements of the converter, an input impedance of less than 0.5 ohm from DC to 100KHz is required.

External output capacitance is not required for operation, however it is recommended that 10uF tantalum and 0.1uF ceramic capacitance be selected for reduced system noise.

Additional output capacitance may be added for increased filtering, but should not exceed 220uF.

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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