

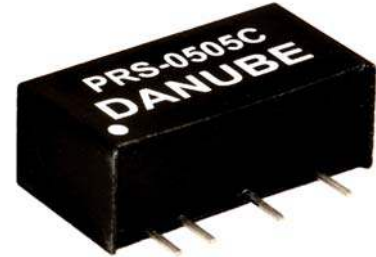
PRD SERIES

1W REGULATED

DANUBE

FEATURES

- SINGLE IN LINE PACKAGE
- UP TO 1W REGULATED OUTPUT POWER
- 100% BURNED IN
- EFFICIENCY UP TO 60%
- INTERNAL SMD TECHNOLOGY
- NO EXTERNAL COMPONENTS REQUIRED
- LOW COST
- 1500VDC ISOLATION
- 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) ¹	100mVp-p max
Line Regulation ²	+/-2% max
Load Regulation ³	+/-2% max
Minimum Load	10% of Full Load
Short Circuit Protection	Current Limit Protection
Short Circuit Restart	Automatic
Transient Response ⁵	100uS max

INPUT SPECIFICATIONS

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

GENERAL SPECIFICATIONS

Efficiency	50% min
Isolation Voltage ⁴	1500VDC min
Isolation Resistance	10 ⁹ ohms min
Isolation Capacitance	80pF max
Switching Frequency	100KHz min
MTBF ⁶	>1,800,000 Hours
Weight	2.3g Typ

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-25 °C to +71 °C	Case Material	Non-Conductive Plastic
Storage Temperature	-55 °C to +125 °C	Case Size	19.6mm*7.5mm*10.2mm
Humidity	95% max	Conducted Emissions	EN55022 Class A
Cooling	Free-Air Convection	Radiated Emissions	EN55022 Class A

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

¹ Measured with 1uF ceramic capacitor connect to the output pins.

² High Line to Low Line.

³ Load Regulation is for output load current change from 10% to 100%.

⁴ 1500VDC for 10 seconds

⁵ 25% Step Load Change.

⁶ MIL-HDBK-217F @25 °C , Ground Benign.

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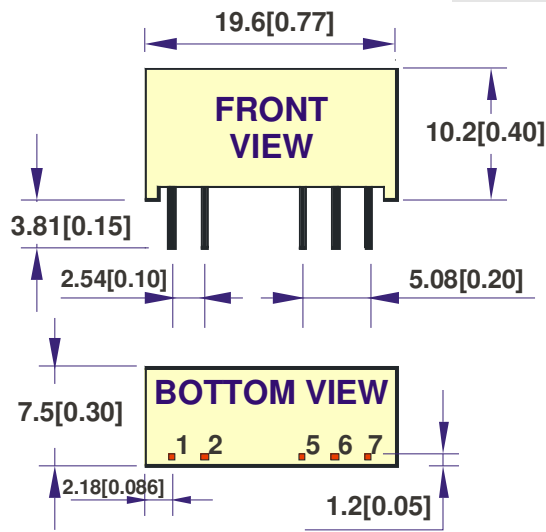
● **SELECTION GUIDE**
1W OUTPUT 1500VDC ISOLATION

MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT CURRENT(mA)		EFF (%)	ISOLATION (VDC)	OUTPUT POWER (Watt)
				FULL LOAD	NO LOAD			
PRD-0505G	4.5-5.5	+/-5	+/-100	350	35	57	1500	1
PRD-0512G	4.5-5.5	+/-12	+/-42	350	50	57	1500	1
PRD-0515G	4.5-5.5	+/-15	+/-34	350	60	57	1500	1
PRD-1205G	10.8-13.2	+/-5	+/-100	141	20	59	1500	1
PRD-1215G	10.8-13.2	+/-15	+/-34	134	30	62	1500	1
PRD-2405G	21.6-26.4	+/-5	+/-100	70	5	60	1500	1
PRD-2412G	21.6-26.4	+/-12	+/-42	70	40	60	1500	1

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

- MECHANICAL DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS**

PACKAGE "G"

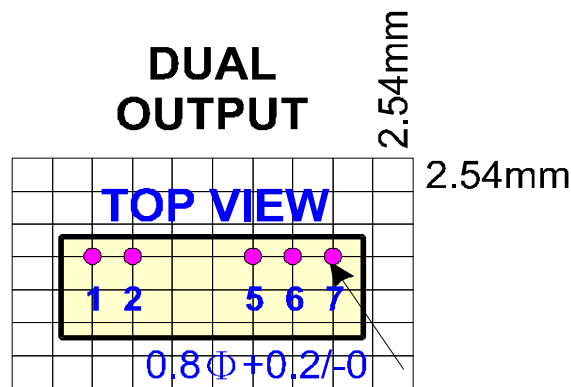


PIN	DUAL
1	+Vin
2	-Vin
5	-Vout
6	Common
7	+Vout

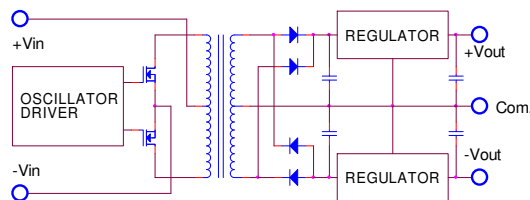
NOTE : All Dimensions In mm(Inches)

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

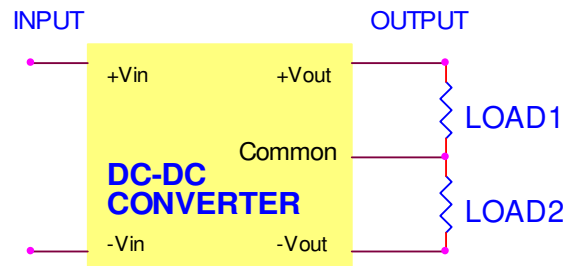
All dimensions are in mm[inches]



- SIMPLIFIED SCHEMATIC**



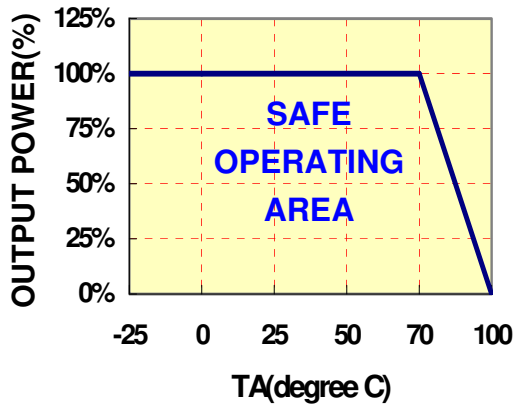
- TYPICAL APPLICATIONS**



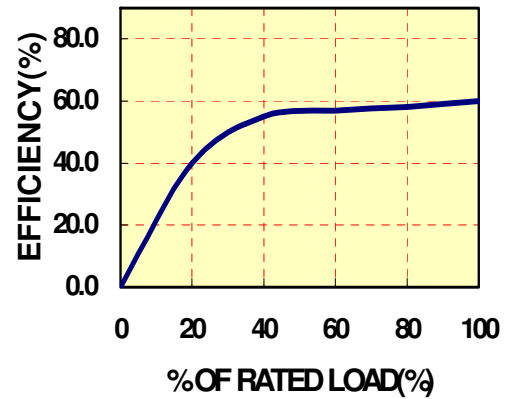
● TYPICAL PERFORMANCE CUREVES

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

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)
500mA Slow-Blow Type	250mA Slow-Blow Type	100mA Slow-Blow Type

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

PRD SERIES APPLICATION NOTES:

EXTERNAL CAPACITANCE REQUIREMENTS:

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

To meet the reflected ripple requirements of the converter, an input impedance of less than 0.5 ohm from DC to 250KHz 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 100uF.

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

<http://www.danube.com.tw>
