

# AUS-0.1W SERIES

0.1W UNREGULATED

# DANUBE

## FEATURES

- DUAL IN LINE PACKAGE
- 100% BURN IN
- INTERNAL SMD TECHNOLOGY
- LOW COST
- UL 94V-0 PACKAGE MATERIAL
- CUSTOM SOLUTIONS AVAILABLE
- MTBF>1,000,000 HOURS
- RoHS COMPLIANT
- 3 YEARS WARRANTY



## OUTPUT SPECIFICATIONS

Voltage Set-point Accuracy	+/-2% max.
Temperature Coefficient	+/-0.05%/°C
Ripple & Noise(20MHz BW) <sup>1</sup>	100mVp-p max.
Line Regulation <sup>2</sup>	+/-1.5% max.
Load Regulation <sup>3</sup>	+/-12% max.
Minimum Load	10% of Full Load
Short Circuit Protection	Momentary

## ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40 °C to +85 °C
Case Temperature	+100 °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	50% typ.
Isolation Voltage <sup>4</sup>	1500 VDC min.
Isolation Resistance	10 <sup>9</sup> ohms min.
Isolation Capacitance	80pF max.
Switching Frequency	100KHz typ.
MTBF <sup>5</sup>	>1,000,000 Hours
Weight	1.5g typ.
Case Material	Non-Conductive Plastic
Case Size	9.40mm*8.80mm*6.35mm
Radiated Emissions	EN55022 Class B

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

<sup>1</sup> Measured with 1uF ceramic capacitor connect to the output pins.

<sup>2</sup> Line Regulation is for a 1.0% change in input Voltage.

<sup>3</sup> Load Regulation is for output load current change from 20% to 100%.

<sup>4</sup> 1500VDC for 10 seconds.

<sup>5</sup> MIL-HDBK-217F @25 °C , Ground Benign.

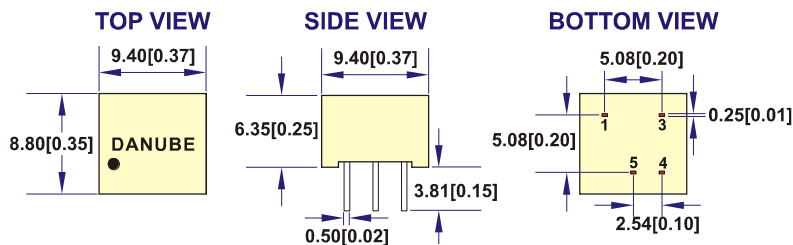
## ● SELECTION GUIDE

MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT <sup>6</sup> CURRENT(mA)		EFF (%) <sup>7</sup>	ISOLATION (VDC) <sup>8</sup>
				FULL LOAD	NO LOAD		
				AUS-03.303.3-0.1W	3.3		
AUS-03.305-0.1W	3.3	5	20	61	20	50	1500
AUS-0503.3-0.1W	5	3.3	30	41	20	50	1500
AUS-0505-0.1W	5	5	20	41	20	50	1500
AUS-1203.3-0.1W	12	3.3	30	17	9	50	1500
AUS-1205-0.1W	12	5	20	17	9	50	1500

## ● PARTNUMBERS STRUCTURE

Model Name	Difference
AUv-x1x2	<p>A=Series Name</p> <p>U=Unregulated</p> <p>v=Type of output voltage (S=single output)</p> <p>x1=input voltage(03.3 ; 05 ; 12 ; 24)</p> <p>x2=Output voltage(03.3 ; 05 ; 09 ; 12 ; 15)</p>

## ● MECHANICAL DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS



All dimensions are in mm[inches]

PIN	SINGLE
1	-Vin
3	+Vin
4	+Vout
5	-Vout

NOTE : All dimensions are in mm [inches]

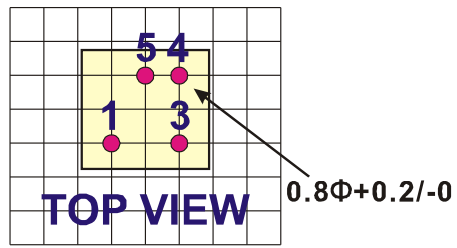
1. Pin Size is 0.50x0.30mm[0.02x0.01"]
2. Pin is Tolerance .XX= ±0.05mm
3. Tolerance .X or .XX= ±0.5mm

<sup>6</sup> NOMINAL INPUT VOLTAGE.

<sup>7</sup> NOMINAL INPUT VOLTAGE, FULL LOAD.

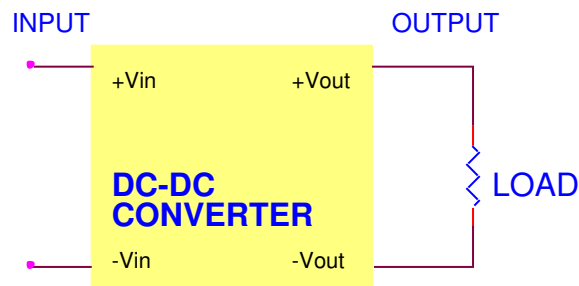
<sup>8</sup> 1500VDC for 10 seconds.

GRID:2.54 mm



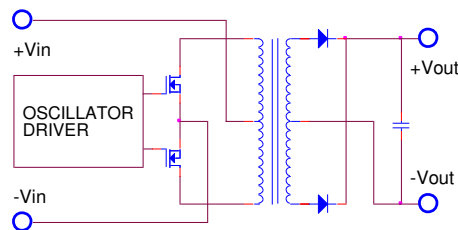
- **TYPICAL APPLICATIONS**

**SINGLE OUTPUT**



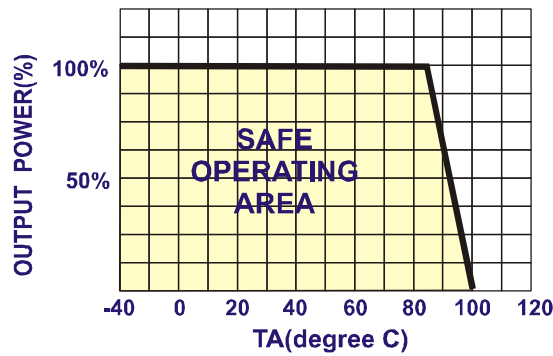
- **SIMPLIFIED SCHEMATIC**

**SINGLE OUTPUT**



- **TYPICAL PERFORMANCE CURVES**

**DERATING CURVE**



## ● INPUT FUSE SELECTION GUIDE

2.97V-3.63V INPUT VOLTAGE(VDC)	4.5V-5.5V INPUT VOLTAGE(VDC)
200mA Slow-Blow Type	150mA Slow-Blow Type

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

### AUS-0.1W 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 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.

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### FOR MORE INFORMATION CALL:

**Danube Enterprise Co., Ltd.**

Tel: 886-7-3755165

Fax: 886-7-3755330

E-mail: danube@ms10.hinet.net

Home Page

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

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