

# Features

## Unregulated Converters

- Dual Output from a Single Input Rail
- Input/Output Isolation 1kVDC or 2kVDC
- Output/Output Isolation 1kVDC
- Power Sharing on Outputs
- UL94V-0 Package Material
- Optional Continuous Short Circuit Protected
- No External Components Required
- Efficiency to 85 %

### Description

The RUZ DC/DC converter offers two independent isolated outputs. Typical applications include multiple channel circuits where inter-channel isolation is also required. The /H option offers 2kVDC isolation between input and outputs. The /P option is with continuous short circuit protection on either or both outputs.

### Selection Guide

Part Number		Input Voltage (VDC)	Output Voltage (V1VDC)	Output Voltage (V2VDC)	Output Current (mA)	Efficiency (%)	Max Capacitive Load <sup>(1)</sup>
SIP 7	2kV						
RUZ-050505	(H)	5	5	5	200/200	70	470µF/470µF

xx = Input Voltage. Other input and output voltage combinations available on request.

\* add Suffix "P" for Continuous Short Circuit Protection, e.g. RUZ-050505/P, RUZ-050505/HP

### Specifications (measured at $T_A = 25^\circ\text{C}$ , nominal input voltage, full load and after warm-up)

Input Voltage Range		$\pm 10\%$	
Output Voltage Accuracy		$\pm 5\%$	
Line Voltage Regulation		1.2%/1% of $V_{in}$ typ.	
Load Voltage Regulation ((10% to 100% full load)		15% max.	
Output Ripple and Noise (20MHz limited)		150mVp-p max.	
Operating Frequency		20kHz min. / 50kHz typ. / 85kHz max.	
Efficiency at Full Load		70% min. / 80% typ.	
Minimum Load = 0%		Specifications valid for 10% minimum load only.	
Isolation Voltage		(tested for 1 second) 1000VDC	
Input/Output and Output/Output		(rated for 1 minute**) 3200VAC / 60Hz	
Isolation Voltage	H-suffix	(tested for 1 second) 2000VDC	
Input/Output	H-suffix	(rated for 1 minute**) 1000VAC / 60Hz	
Output/Output		(tested for 1 second) 1000VDC	
Isolation Capacitance		40pF min. / 120pF max.	
Isolation Resistance		10 $G\Omega$ min.	
Short Circuit Protection		1 Second	
P-Suffix		Continuous	
Operating Temperature Range (free air convection)		-40°C to +85°C (see Graph)	
Storage Temperature Range		-55°C to +125°C	
Relative Humidity		95% RH	
Package Weight		2.8g	
Packing Quantity		25 pcs per Tube	
MTBF (+25°C)	} Detailed Information see Application Notes chapter "MTBF"	using MIL-HDBK 217F	988 x 10 <sup>3</sup> hours
(+85°C)		using MIL-HDBK 217F	135 x 10 <sup>3</sup> hours
Certifications			
EN General Safety	Report: SPCLVD1109103		EN60950-1:2006 + A12:2011

\*\*Any data referred to in this datasheet are of indicative nature and based on our practical experience only. For further details, please refer to our Application Notes.

# ECONOLINE

## DC/DC-Converter

with 3 year Warranty

# RECOM

## 2 Watt

## SIP7

## Isolated

## Dual Output

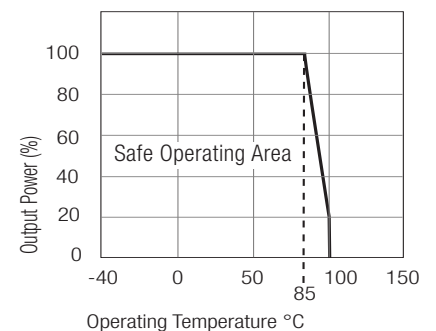


**EN-60950-1 Certified**

# RUZ

## Derating-Graph

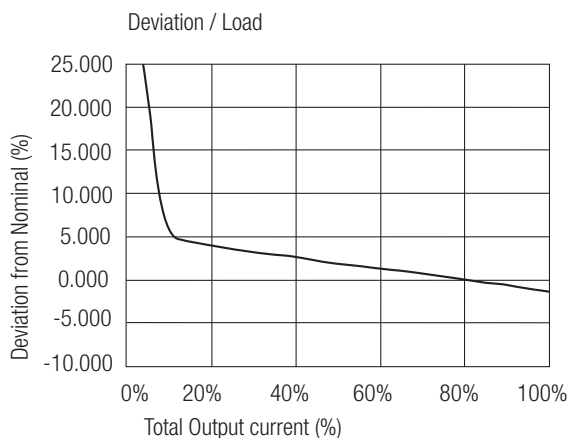
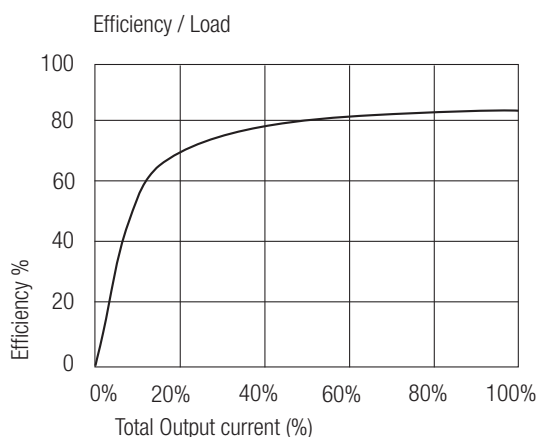
(Ambient Temperature)



Refer to Application Notes

www.recom-power.com

## Typical Characteristics

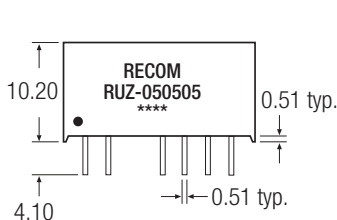


### Notes

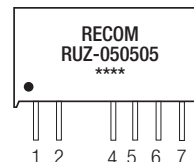
Note 1 Maximum capacitive load is defined as the capacitive load that will allow start up in under 1 second without damage to the converter.

## Package Style and Pinning (mm)

### 7 PIN SIP Package



### Dual Independent Outputs

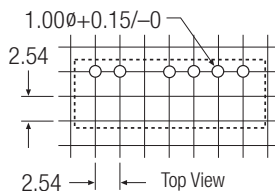
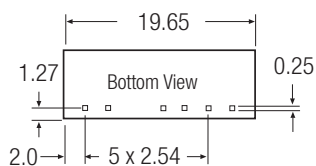


### Pin Connections

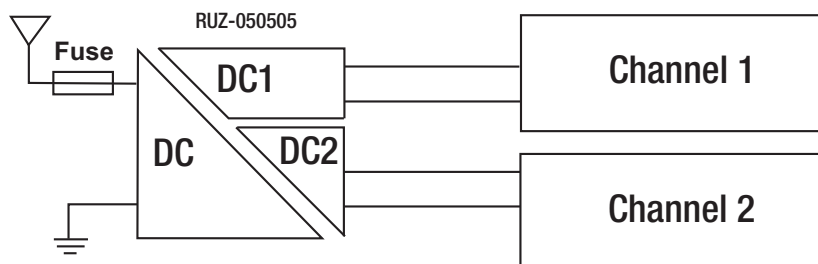
Pin #	Single
1	+Vin
2	-Vin
4	+Vout 1
5	-Vout 1
6	+Vout 2
7	-Vout 2

XX.X ± 0.5 mm  
XX.XX ± 0.25 mm

### Recommended Footprint Details



## Typical Application



The product information and specifications are subject to change without prior notice. All products are designed for non-safety critical commercial and industrial applications. The Buyer agrees to implement safeguards that anticipate the consequences of any failures that might cause harm, loss of life and/or damage property.