

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 ⁽¹⁾
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			±10%	
Output Voltage Accuracy			±5%	
Line Voltage Regulation			1.2%/1% of Vin 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 GΩ 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 ³ hours
(+85°C)			using MIL-HDBK 217F	135 x 10 ³ 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

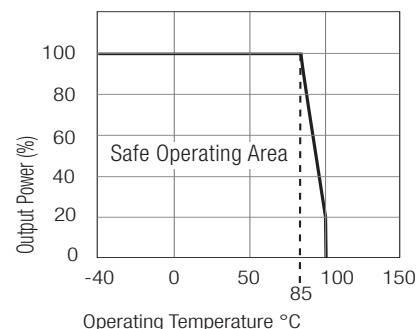
Dual Output



EN-60950-1 Certified

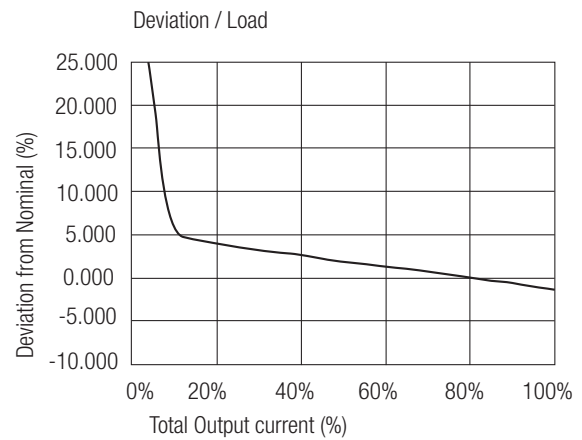
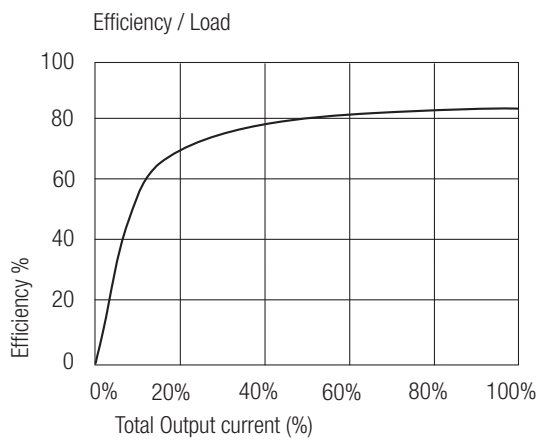
RUZ

Derating-Graph (Ambient Temperature)



Refer to Application Notes

Typical Characteristics

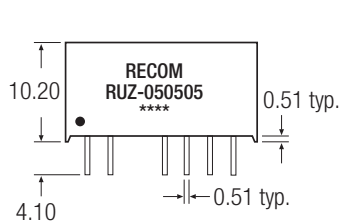


Notes

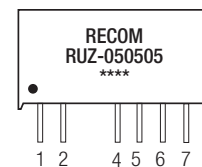
Note 1 Maximum capacitive load is defined as the capacitive load that will allow start up in under 1 second without damage to the converter.

Package Style and Pinning (mm)

7 PIN SIP Package



Dual Independent Outputs

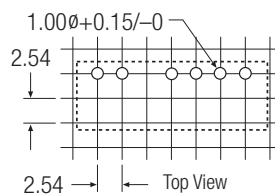
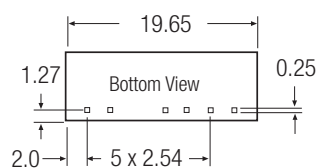


Pin Connections

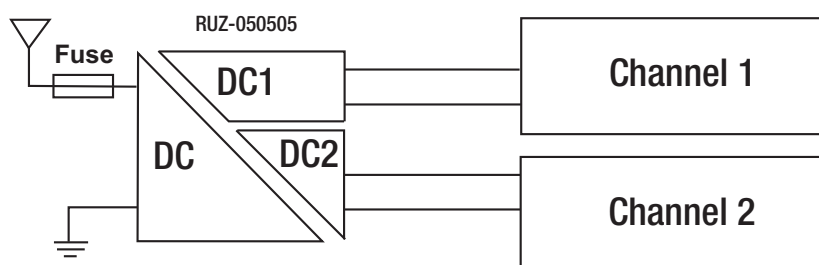
Pin #	Single
1	+Vin
2	-Vin
4	+Vout 1
5	-Vout 1
6	+Vout 2
7	-Vout 2

XX.X ± 0.5 mm
XX.XX ± 0.25 mm

Recommended Footprint Details



Typical Application



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