

## Features

## Unregulated Converters

Rev.0

- Twin Independent Outputs
- Output/Output Isolation 1kVDC
- Power Sharing on Outputs
- Input/Output Isolation 1kVDC
- UL94V-0 Package Material
- Optional Continuous Short Circuit Protected
- Custom Solutions Available
- Efficiency to 78 %

# ECONOLINE

DC/DC-Converter

# RU Series

## 1 Watt SIP7 Isolated Dual Output



**EN-60950-1 Certified**

### Description

The RU DC/DC converter offers two independent isolated outputs. Typical applications include multiple channel circuits where inter-channel isolation is also required.

### Selection Guide

Part Number	Input Voltage (VDC)	Output Voltage (V1VDC)	Output Voltage (V2VDC)	Output Current (mA)	Efficiency (%)
RU-xx0505	5	5	5	100/100	70-78

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

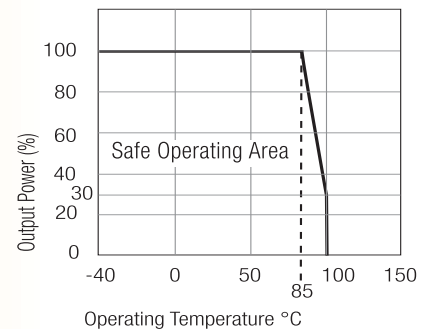
\* add Suffix "P" for Continuous Short Circuit Protection, e.g. RU-050505/P

### 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	5V output type	15% max	
Output Ripple and Noise (20MHz limited)		75mVp-p max.	
Operating Frequency		50kHz min. / 100kHz typ. / 105kHz max.	
Efficiency at Full Load		70% min. / 80% typ.	
No Load Power Consumption		87mW min. / 130mW typ. / 220mW max.	
Maximum Capacitive Load		10 $\mu\text{F}$ +10 $\mu\text{F}$	
Isolation Voltage <sup>1)</sup>	(tested for 1 second)	1000VDC min.	
Rated Working Voltage <sup>1)</sup>	(long term isolation)	see Application Notes	
Isolation Capacitance		20pF min. / 94pF 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		2.7g	
MTBF (+25°C)	} Detailed Information see Application Notes chapter "MTBF"	using MIL-HDBK 217F	1012 x 10 <sup>3</sup> hours
(+85°C)		using MIL-HDBK 217F	151 x 10 <sup>3</sup> hours

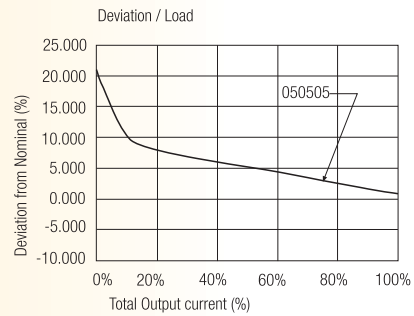
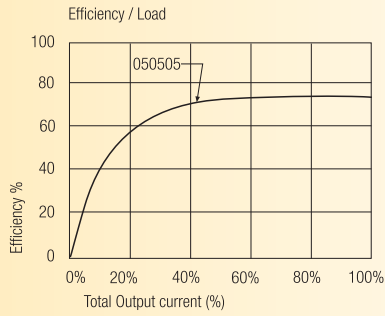
<sup>1)</sup> Input/Output and Output V1/Output V2

## Derating-Graph (Ambient Temperature)



Typical Characteristics

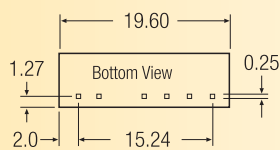
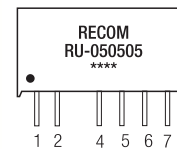
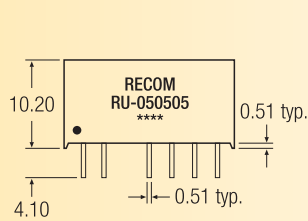
**RU-xx0505**



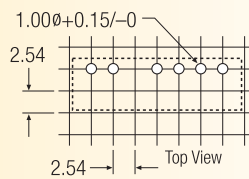
Package Style and Pinning (mm)

7 PIN SIP Package

3rd angle projection



Recommended Footprint Details



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

Typical Application

