Features

Unregulated Converters

- Twin Independent Outputs
- Output/Output Isolation 1kVDC
- Power Sharing on Outputs
- Input/Output Isolation 1kVDC
- Standard and Miniature Versions
- Optional Continuous Short Circuit Protected
- Custom Solutions Available
- Efficiency to 76%

ECONOLINE
DC/DC-Converter
with 3 year Warranty

RECOM

1 Watt SIP7 Isolated Dual Output

RoHS 2011/65/EU 6/6

EN-60950-1 Certified

RU/RUM

Description

The RU DC/DC converter offers two independent isolated outputs. Typical applications include multiple channel circuits where inter-channel isolation is also required. The RUM offers similar specifications in a miniature case for applications where space is at a premium. Both converters offer 1KVDC input/output isolation and 1kVDC output/output isolation. The /H versions offer 2kVDC isolation between input and outputs.

Selection Guide

Part Number SIP 7		Input Voltage (VDC)	Output Voltage (V1VDC)	Output Voltage (V2VDC)	Output Current (mA)	Efficiency typ. (%)	Max Capacitive Load[1]
RU-3.30505	(H)	3.3	5	5	100/100	76	470µF/470µF
RU-050505	(H)	5	5	5	100/100	72	470µF/470µF
RUM-3.30505	(H)	3.3	5	5	100/100	78	470µF/470µF
RUM-050505	(H)	5	5	5	100/100	72	470µF/470µF

Other input and output voltage combinations available on request
* add Suffix "P" for Continuous Short Circuit Protection,
e.g. RU-050505/P, RUM-050505/P, RU-3.30505/HP

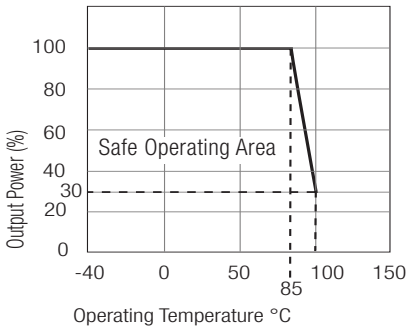
Specifications (measured at T_A = 25°C, nominal input voltage, full load and after warm-up)

Input Voltage Range			±10%
Output Voltage Accuracy			±5%
Line Voltage Regulation			1.2%/1% of Vin typ.
Load Voltage Regulation			15% max
(10%~100% Load)			10% typ.
Output Ripple and Noise (20MHz limited)		RU	75mVp-p max.
Full Load		RUM	100mVp-p max.
Operating Frequency			20kHz min. / 70kHz typ. / 105kHz max.
Efficiency at Full Load		RU	70% min.
		RUM	70% min.
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**)	500VAC / 60Hz
Isolation Voltage	H-suffix	(tested for 1 second)	2000VDC
Input/Output	H-suffix	(rated for 1 minute**)	1000VAC / 60Hz
Output/Output	H-suffix	(rated for 1 minute**)	500VAC / 60Hz
Isolation Capacitance			20pF min. / 94pF 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			2.7g
Packing Quantity		RU	25 pcs per Tube
		RUM	30 pcs per Tube
MTBF (+25°C) / (+85°C) — *Detailed Information see Application Notes chapter "MTBF"*		using MIL-HDBK 217F	1012 x 10^3 hours / 151 x 10^3 hours

Certifications

EN60950-1	Report: SPCLVD1109103	EN60950-1: 2006+A12:2011

Derating-Graph
(Ambient Temperature)

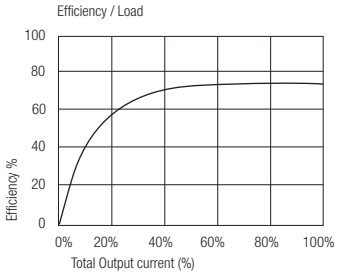


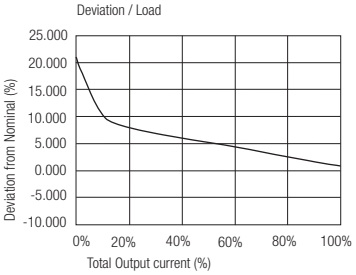
**Any data referred to in this datasheet are of indicative nature and based on our practical experience only. For further details, please refer to our Application Notes.

Refer to Application Notes

Typical Characteristics

RU-050505
RUM-050505



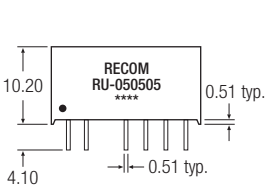


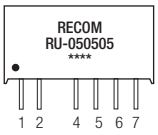
Notes

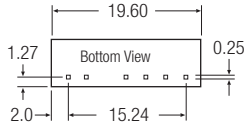
Note 1 Maximum capacitive load is defined as the capacitive load that will allow start up in under 1 second without damage to the converter.

RU Package Style and Pinning (mm)

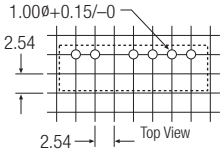
SIP7 Package







Recommended Footprint Details



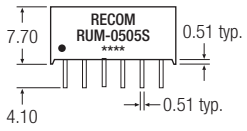
Pin Connections

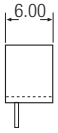
Pin #	Single
1	+Vin
2	–Vin
4	+Vout 1
5	–Vout 1
6	+Vout 2
7	–Vout 2

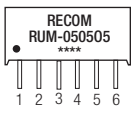
XX.X ± 0.5 mm
XX.XX ± 0.25 mm

RUM Package Style and Pinning (mm)

SIP6 Package







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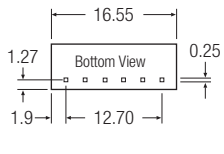
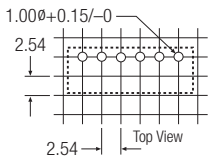


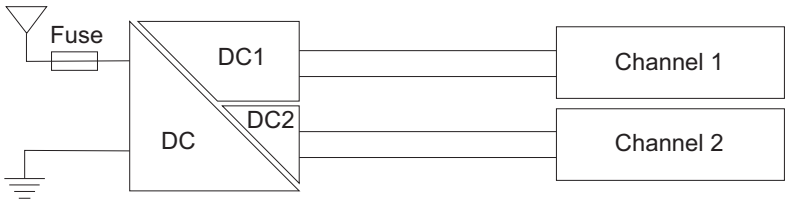


Pin Connections

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

XX.X ± 0.5 mm
XX.XX ± 0.25 mm

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.