

Features

Unregulated Converters

Rev.0

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

ECONOLINE

DC/DC-Converter

RUZ Series

2 Watt

SIP7

Isolated

Dual Output

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 (%)
RUZ-xx0505	5	5	5	200/200	70-82

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

* add Suffix "P" for Continuous Short Circuit Protection, e.g. RUZ-050505S/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 (10% to 100% full load)	5V output type	15% max.	
Output Ripple and Noise (20MHz limited)			150mVp-p max.
Operating Frequency			35kHz min. / 50kHz typ. / 85kHz max.
Efficiency at Full Load			70% min. / 80% typ.
No Load Power Consumption			163mW min. / 223mW typ. / 350mW max.
Maximum Capacitive Load			33 μF + 33 μF
Isolation Voltage ¹⁾	(tested for 1 second)	1000VDC min.	
Rated Working Voltage	(long term isolation)	see Application Notes	
Isolation Capacitance			40pF min. / 120pF max.
Isolation Resistance			10 G Ω min.
Short Circuit Protection P-Suffix			1 Second 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
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

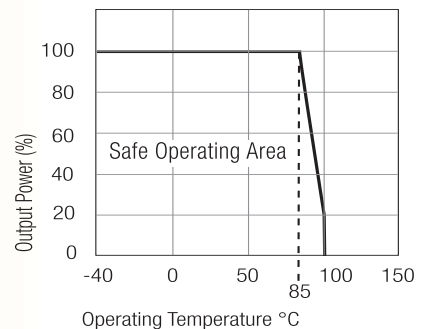
¹⁾ Input/Output and Output V1/Output V2



EN-60950-1 Certified

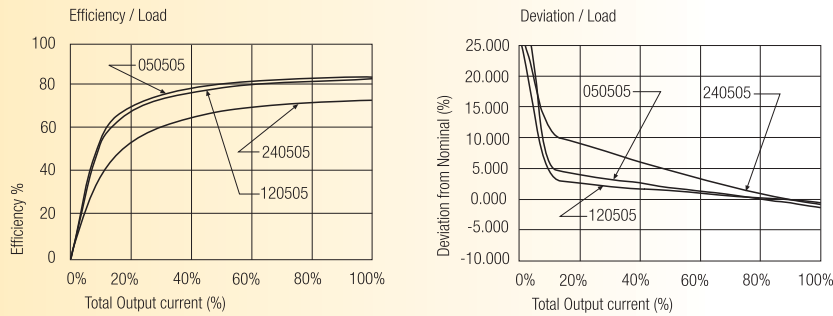
RECOM

Derating-Graph (Ambient Temperature)



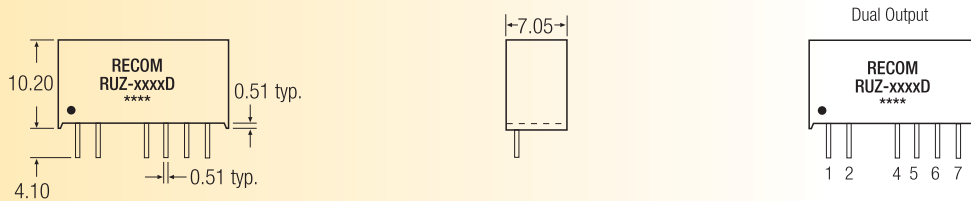
Typical Characteristics

RUZ-xx0505

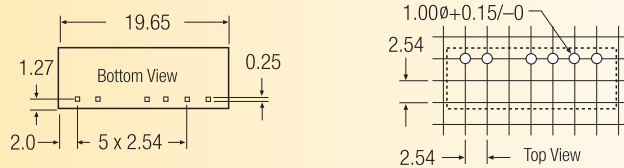


Package Style and Pinning (mm)

7 PIN SIP 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

