

Features

Unregulated Converters

- Dual Output from a Single Input Rail
- Input/Output Isolation 1kVDC
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- Power Sharing on Outputs
- UL94V-0 Package Material
- Toroidal Magnetics
- No Extern. Components Required
- Efficiency to 85%

ECONOLINE

DC/DC-Converter

RUZ Series

Selection Guide

Part Number	Input Voltage (VDC)	Output Voltage (V1VDC)	Output Voltage (V2VDC)	Output Current (mA)	Efficiency (%)
SIP 7	(VDC)	(V1VDC)	(V2VDC)	(mA)	(%)
RUZ-xx3.33.3	5, 9, 12, 24	3.3	3.3	303/303	70
RUZ-xx0505	5, 9, 12, 24	5	5	200/200	70-82
RUZ-xx0509	5, 9, 12, 24	5	9	200/111	70-82
RUZ-xx0512	5, 9, 12, 24	5	12	200/84	70-82
RUZ-xx0515	5, 9, 12, 24	5	15	200/66	70-82
RUZ-xx0909	5, 9, 12, 24	9	9	111/111	82-84
RUZ-xx1212	5, 9, 12, 24	12	12	84/84	82-84
RUZ-xx1515	5, 9, 12, 24	15	15	66/66	82-84
RUZ-xx2424	5, 9, 12, 24	24	24	42/42	80-85

xx = Input Voltage

Specifications (Core Operating Area)

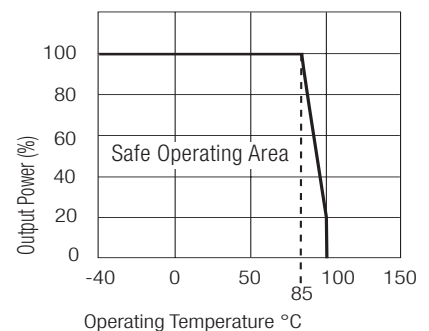
Input Voltage Range	±10%	
Output Voltage Accuracy	±5%	
Line Voltage Regulation	1.2%/1% of Vin max.	
Load Voltage Regulation (10% to 100% full load)	3.3V output types	20% max.
	5V output type	15% max.
	9V, 12V, 15V, 24V output types	10% max.
Output Ripple and Noise (20MHz limited)	150mVp-p max.	
Operating 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.	
Isolation Voltage ¹⁾	(tested for 1 second)	1.000VDC min.
Rated Working Voltage ¹⁾	(long term isolation)	see Application Notes
Isolation Capacitance	40pF min. / 120pF max.	
Isolation Resistance	10 GΩ min.	
Short Circuit Protection	1 Second	
Operating Temperature Range (free air convection)	-40°C to +85°C (see Graph)	
Storage Temperature Range	-55°C to +125°C	
Relative Humidity	MSL Level 1	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

2 Watt SIP7 Isolated Dual Output

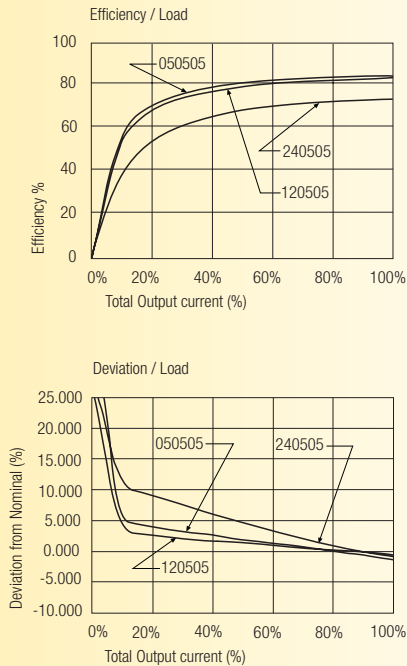


Derating-Graph (Ambient Temperature)

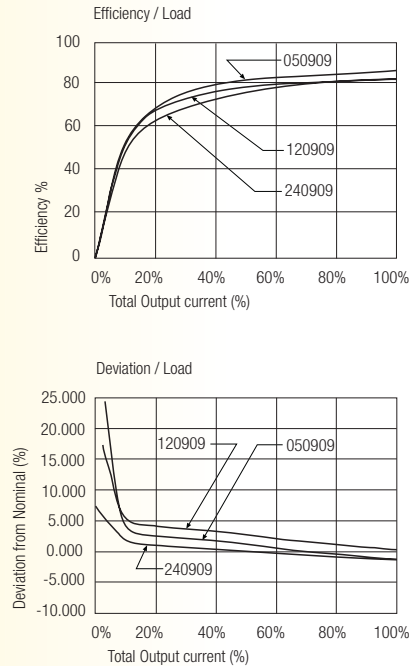


Typical Characteristics

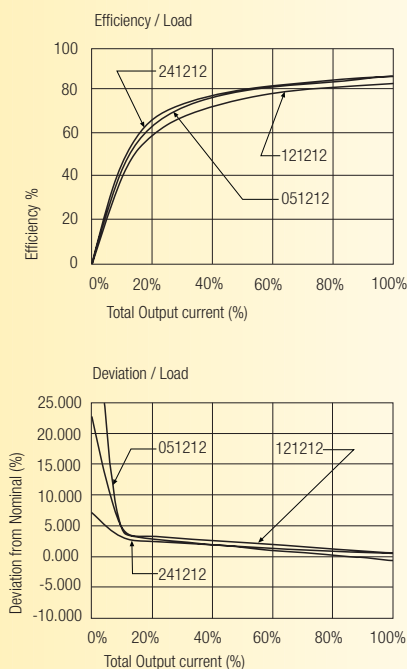
RUZ-xx0505



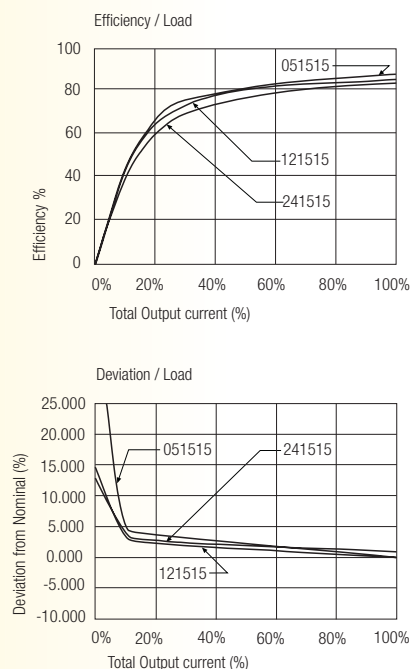
RUZ-xx0909



RUZ-xx1212

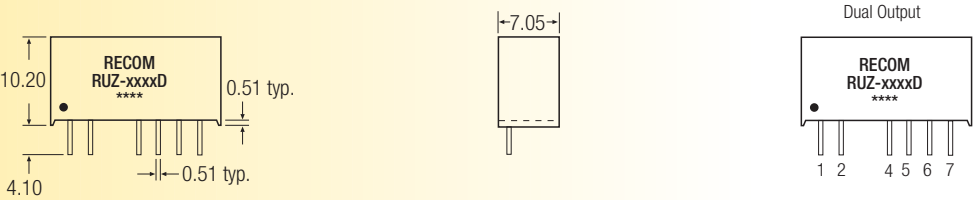


RUZ-xx1515

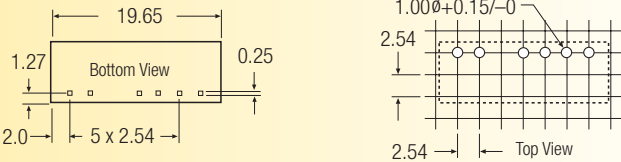


Package Style and Pinning (mm)

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