

## Features

### Unregulated Converters

- Safety standards and approvals: EN 60950 certified, rated for 250VAC (LVD test report)
- UL-60950-1 / CSA C22.2 certified
- 5.2kVDC Isolation
- Optional Continuous Short Circuit Protected
- Pin Compatible with RH & RK Series, SIP DC-DC Converters
- UL94V-0 Package Material
- Efficiency to 82%

### Selection Guide

Part Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)
SIP 7	(VDC)	(VDC)	(mA)	(%)
RP-xx3.3S	5, 9, 12, 15, 24	3.3	303	70
RP-xx05S	3.3, 5, 9, 12, 15, 24	5	200	70-72
RP-xx09S	3.3, 5, 9, 12, 15, 24	9	111	75
RP-xx12S	3.3, 5, 9, 12, 15, 24	12	84	75-78
RP-xx15S	3.3, 5, 9, 12, 15, 24	15	66	80
RP-xx24S	3.3, 5, 9, 12, 15, 24	24	42	80
RP-xx3.3D	5, 9, 12, 15, 24	±3.3	±152	70
RP-xx05D	3.3, 5, 9, 12, 15, 24	±5	±100	74-76
RP-xx09D	3.3, 5, 9, 12, 15, 24	±9	±56	75
RP-xx12D	3.3, 5, 9, 12, 15, 24	±12	±42	79-82
RP-xx15D	3.3, 5, 9, 12, 15, 24	±15	±33	80-82
RP-xx24D	3.3, 5, 9, 12, 15, 24	±24	±21	80

xx = Input Voltage

\* add Suffix "P" for Continuous Short Circuit Protection, e.g. RP-0505S/P, RP-0505S/P

### Specifications (Core Operating Area)

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)	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)	100mVp-p max.		
Operating Frequency	57kHz min. / 100kHz typ. / 105kHz max.		
Efficiency at Full Load	70% min. / 80% typ.		
No Load Power Consumption	120mW min. / 156mW typ. / 460mW max.		
Isolation Voltage (tested for 1 second)	5200VDC min.		
Rated Working Voltage (long term isolation)	see Application Notes		
Isolation Capacitance	4pF min. / 10pF max.		
Isolation Resistance	20 GΩ 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	2.4g		
MTBF (+25°C)	} Detailed Information see Application Notes chapter "MTBF"	using MIL-HDBK 217F	928 x 10 <sup>3</sup> hours
(+85°C)		using MIL-HDBK 217F	150 x 10 <sup>3</sup> hours

## ECONOLINE

DC/DC-Converter

# RP Series

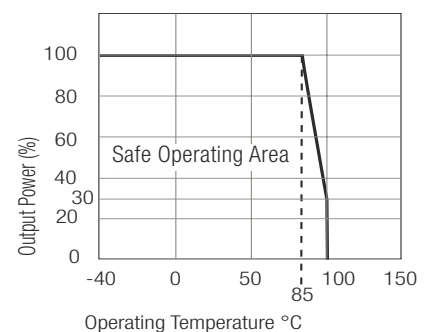
## 1 Watt SIP 7 Single & Dual Output



EN-60950-1 Certified  
UL-60950-1 Certified  
EN-60601-1 Certified

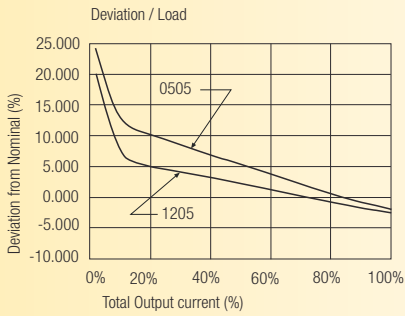
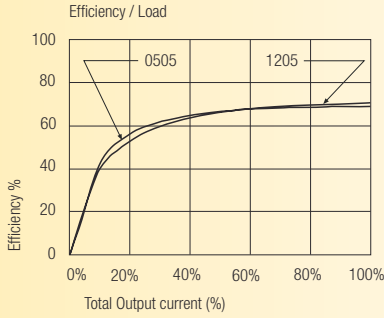
# RECOM

## Derating-Graph (Ambient Temperature)

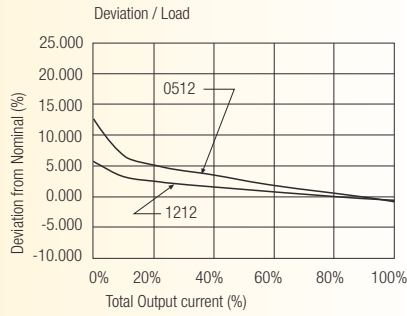
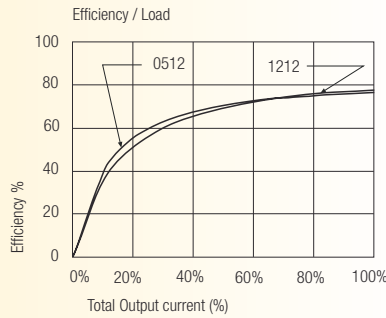


**Typical Characteristics**

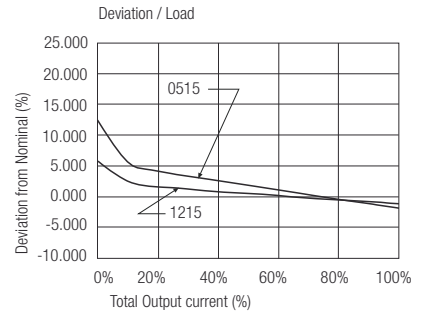
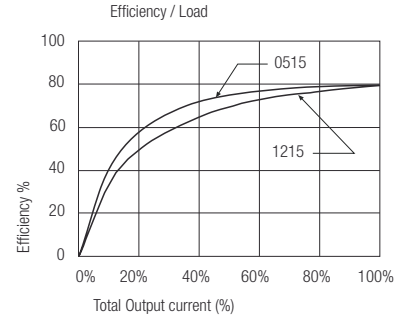
**RP-xx05S**



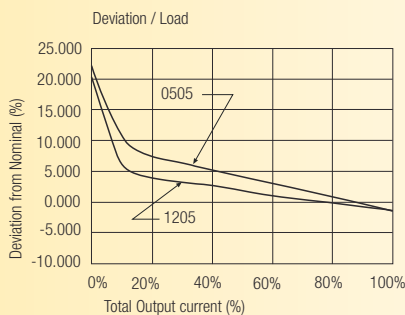
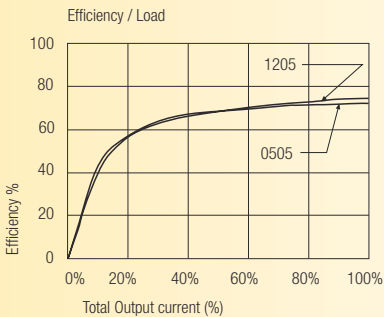
**RP-xx12S**



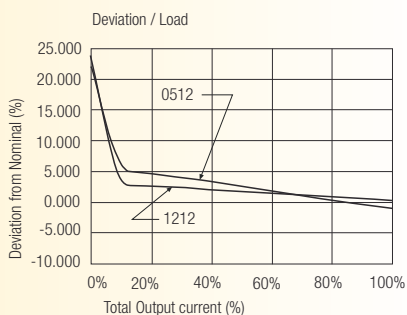
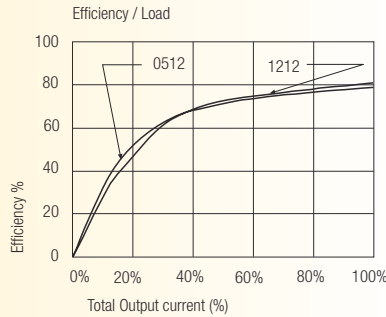
**RP-xx15S**



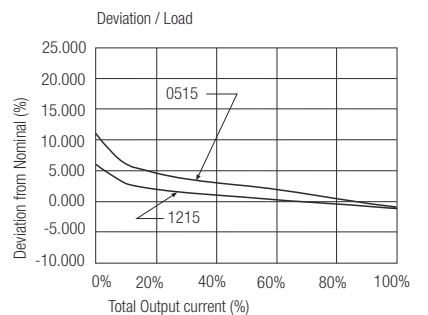
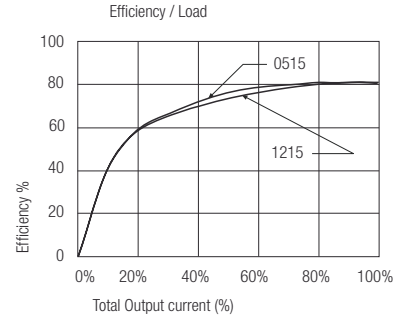
**RP-xx05D**



**RP-xx12D**

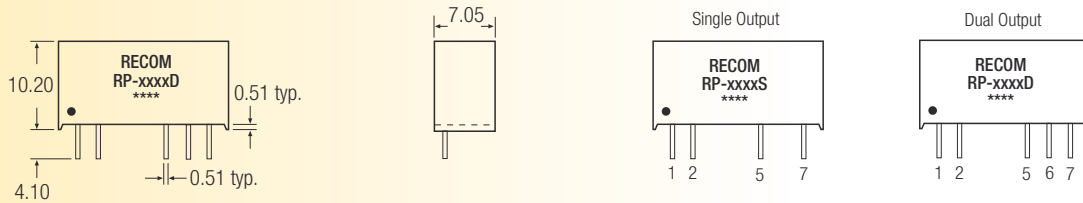


**RP-xx15D**

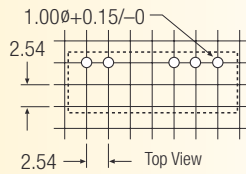
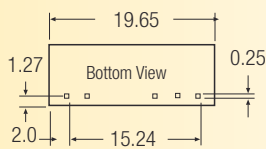


**Package Style and Pinning (mm)**

**7 PIN SIP Package**



**Recommended Footprint Details**



**Pin Connections**

Pin #	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
5	-Vout	-Vout
6	No Pin	Com
7	+Vout	+Vout

XX.X ± 0.5 mm  
XX.XX ± 0.25 mm