

## 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 for 1 Minute
- Internal SMD Construction
- Wide Temperature Performance at full 1 Watt Load, -40°C to +85°C
- 2 chamber-isolated-transformers used for meeting extra-high-isolation
- UL94V-0 Package Material
- Efficiency to 80%

**EUROLINE**  
DC/DC-Converter

# RxxPxxD Series

**1 Watt**  
**SIP 7**  
**Dual Output**

### Selection Guide

Part Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)
RxxP3.3D	5, 9, 12, 15, 24	±3.3	±151	70
RxxP05D	5, 9, 12, 15, 24	±5	±100	70-75
RxxP09D	5, 9, 12, 15, 24	±9	±55	70-75
RxxP12D	5, 9, 12, 15, 24	±12	±41	70-75
RxxP15D	5, 9, 12, 15, 24	±15	±33	75-80

xx = Input Voltage

### Description

The RxxPxx Series of DC/DC Converters are fully certified to EN 60950: 2000. This makes them ideal for all Telecom and safety applications where approved isolation is required and UL-60950-1 / CSA C22.2.

### Specifications

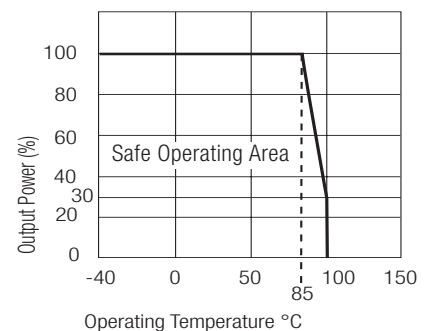
(measured at  $T_A = 25^\circ\text{C}$ , at nominal input voltage and rated output current unless otherwise specified)

Input Voltage Range		±10%	
Output Voltage Accuracy		±5%	
Line Voltage Regulation		1.2%/1% of $V_{in}$ max.	
Load Voltage Regulation (10% to 100% full load)	3.3, 5V output types other output types	15% max. 10% max.	
Output Ripple and Noise (20MHz BW)		200mVp-p max.	
Operating Frequency		20kHz min. / 50kHz typ. / 85kHz max.	
Efficiency at Full Load		65% min. / 70% typ.	
No Load Power Consumption		148mW min. / 220mW typ. / 355mW max.	
Isolation Voltage (tested for 1 minute)		5.200VDC min.	
Rated Working Voltage (long term isolation)		see Application Notes	
Isolation Capacitance		4pF min. / 10pF max.	
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		4.3g	
MTBF (+25°C)	} Detailed Information see Application Notes chapter "MTBF"	using MIL-HDBK 217F	1450 x 10 <sup>3</sup> hours
(+85°C)		using MIL-HDBK 217F	230 x 10 <sup>3</sup> hours



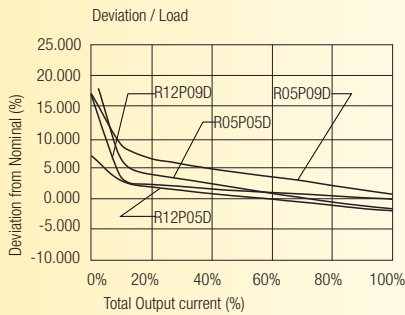
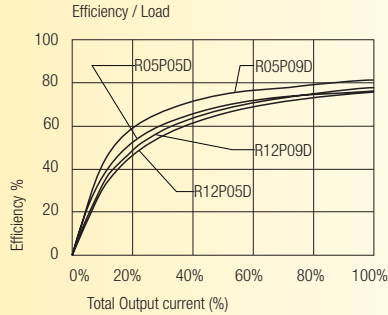
**RECOM**

## Derating-Graph (Ambient Temperature)

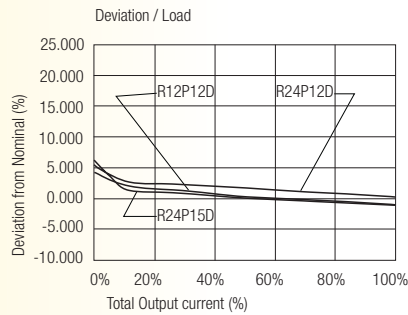
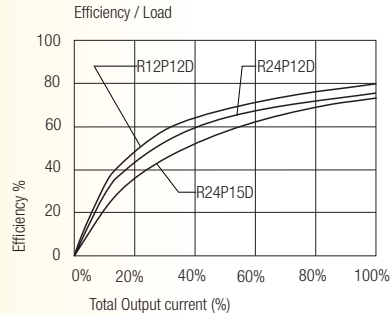


**Typical Characteristics, Tolerance Envelope**

**RxxP05/09D**



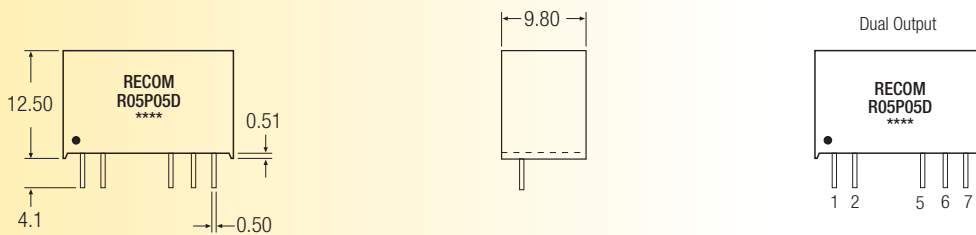
**RxxP12/15D**



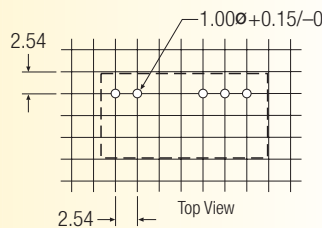
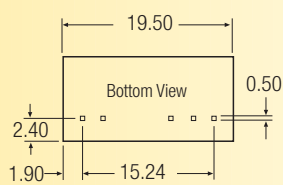
**Package Style and Pinning (mm)**

**7 PIN SIP Package**

3rd angle projection



**Recommended Footprint Details**



**Pin Connections**

Pin #	Dual
1	+Vin
2	-Vin
5	-Vout
6	Com
7	+Vout

XX.X ± 0.5 mm  
XX.XX ± 0.25 mm