

## Features

## Unregulated Converters

- Dual Output from a Single Input Rail
- 1kVDC & 2kVDC Isolation
- Power Sharing on Output
- Custom Solutions Available
- UL94V-0 Package Material
- Efficiency to 86%

**ECONOLINE**

DC/DC-Converter

# RD & RC Series

### Selection Guide

Part Number		Input Voltage	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)	
SIP 7	DIP 14	2kV	(VDC)	(mA)	(%)	
RD-xx3.3D	RC-xx3.3D	(H)	5, 9, 12, 15, 24	±3.3	±303	70
RD-xx05D	RC-xx05D	(H)	5, 9, 12, 15, 24	±5	±200	70-82
RD-xx09D	RC-xx09D	(H)	5, 9, 12, 15, 24	±9	±111	80-84
RD-xx12D	RC-xx12D	(H)	5, 9, 12, 15, 24	±12	±84	80-84
RD-xx15D	RC-xx15D	(H)	5, 9, 12, 15, 24	±15	±66	82-86
RD-xx24D	RC-xx24D	(H)	5, 9, 12, 15, 24	±24	±42	82-86

xx = Input Voltage

## 2 Watt SIP7 & DIP14 Dual Output

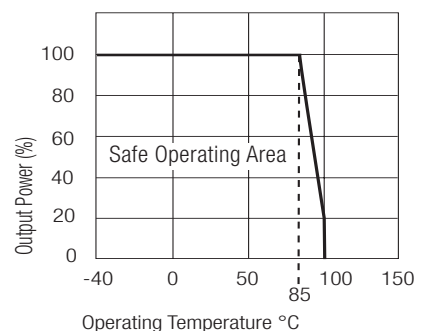


### Specifications (Core Operating Area)

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		34kHz 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 (tested for 1 second)		1.000VDC min.	
Rated Working Voltage (long term isolation)		see Application Notes.	
Isolation Voltage (tested for 1 second)	H-Suffix	2.000VDC min.	
Rated Working Voltage (long term isolation)	H-Suffix	see Application Notes	
Isolation Capacitance		40pF min. / 115pF 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 <sup>3</sup> hours
(+85°C)		using MIL-HDBK 217F	135 x 10 <sup>3</sup> hours

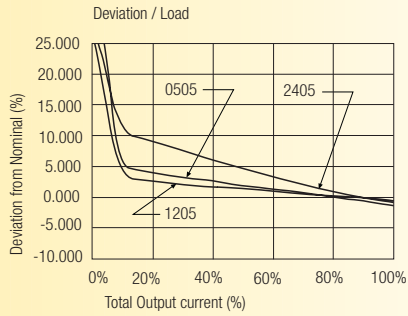
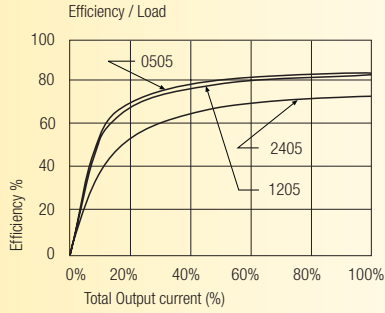
**RECOM**

## Derating-Graph (Ambient Temperature)

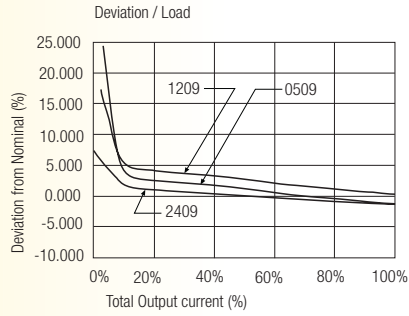
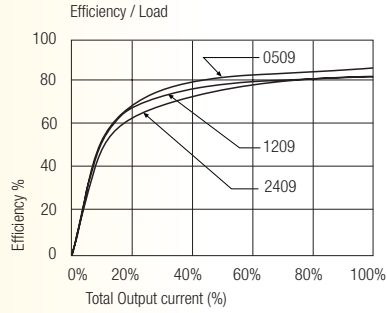


**Typical Characteristics**

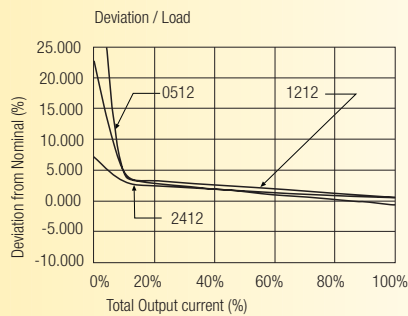
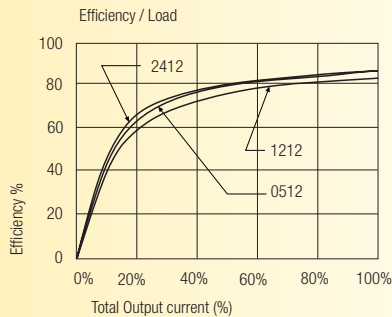
**RD&RC-xx05D**



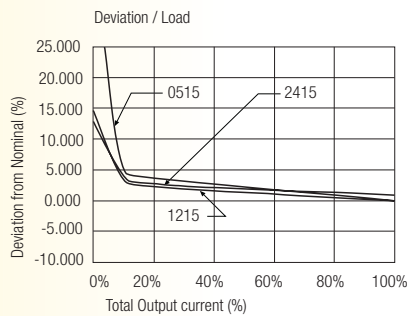
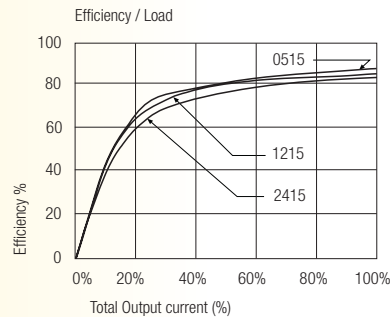
**RD&RC-xx09D**



**RD&RC-xx12D**

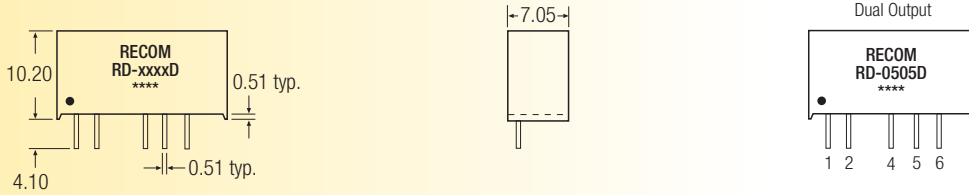


**RD&RC-xx15D**

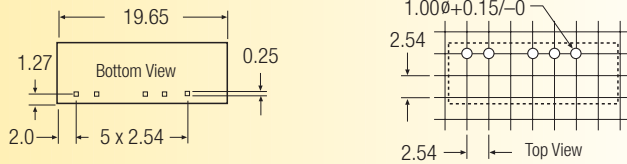


**Package Style and Pinning (mm)**

**7 PIN SIP Package**



**Recommended Footprint Details**

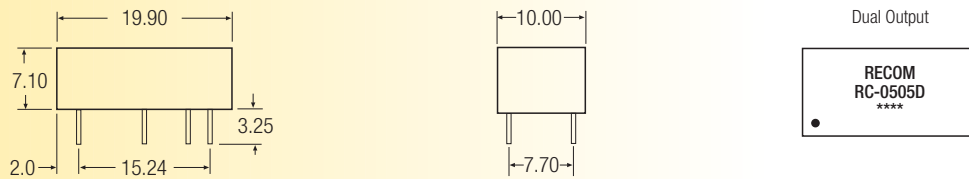


**RX Pin Connections**

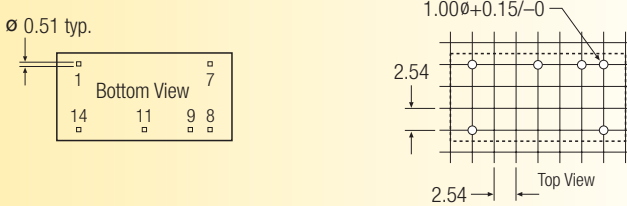
Pin #	Dual
1	+Vin
2	-Vin
4	-Vout
5	Com
6	+Vout

XX.X ± 0.5 mm  
XX.XX ± 0.25 mm

**14 PIN DIP Package**



**Recommended Footprint Details**



**Pin Connections**

Pin #	RC
1	-Vin
7	NC
8	Com
9	+Vout
11	-Vout
14	+Vin

XX.X ± 0.5 mm  
XX.XX ± 0.25 mm