Features

Unregulated Converters

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

ECONOLINE
DC/DC-Converter

RD & RC Series

2 Watt SIP7 & DIP14 Dual Output

Selection Guide

Part Number			Input Voltage	Output Voltage	Output Current	Efficiency
SIP 7	DIP 14	2kV	(VDC)	(VDC)	(mA)	(%)
RD-xx3.3D	RC-xx3.3D	(H)	5, 9, 12, 15, 24	±3.3	±303	75
RD-xx05D	RC-xx05D	(H)	5, 9, 12, 15, 24	±5	±200	75-82
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

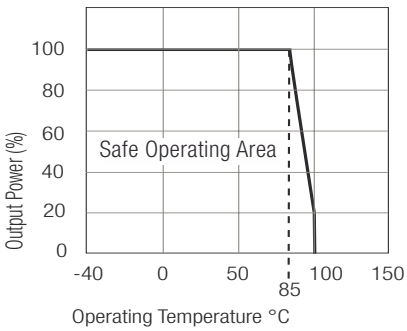
* add Suffix "P" for Continuous Short Circuit Protection, e.g. RD-0505D/P, RD-0505D/HP

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)			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)	1000VDC min.
Rated Working Voltage		(long term isolation)	see Application Notes.
Isolation Voltage	H-Suffix	(tested for 1 second)	2000VDC min.
Rated Working Voltage	H-Suffix	(long term isolation)	see Application Notes
Isolation Capacitance			40pF min. / 115pF max.
Isolation Resistance			10 GΩ min.
Short Circuit Protection			1 Second
P-Suffix			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*		using MIL-HDBK 217F	988 x 10^3 hours
(+85°C) } *Application Notes chapter "MTBF"*		using MIL-HDBK 217F	135 x 10^3 hours

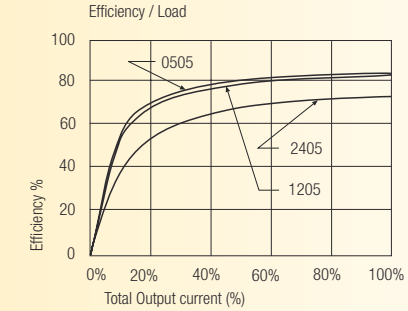
RECOM

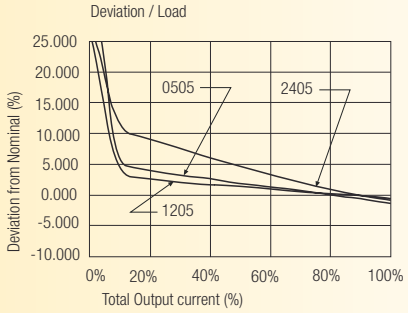
Derating-Graph
(Ambient Temperature)



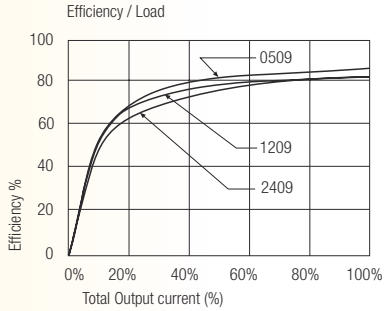
Typical Characteristics

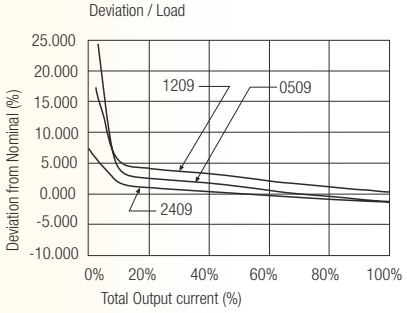
RD&RC-xx05D



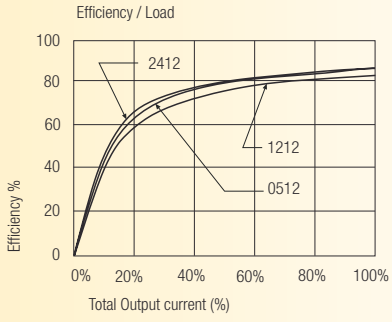


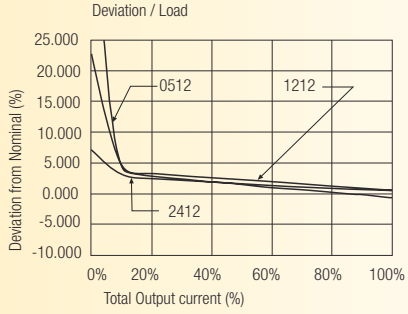
RD&RC-xx09D



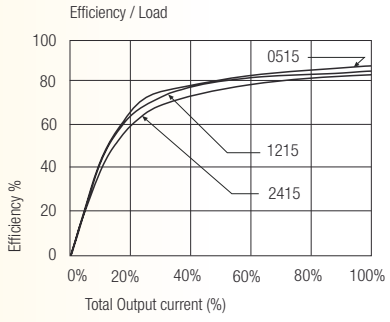


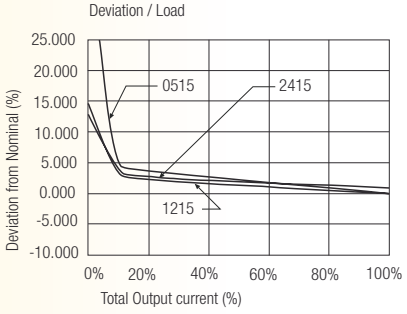
RD&RC-xx12D





RD&RC-xx15D

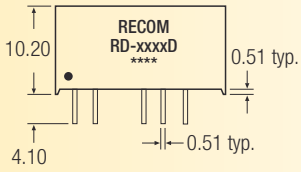




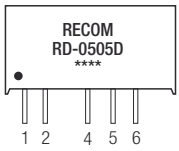
Package Style and Pinning (mm)

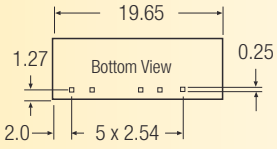
3rd angle projection

7 PIN SIP Package

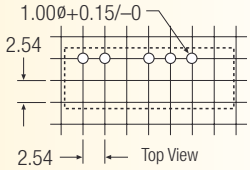


Dual Output





Recommended Footprint Details

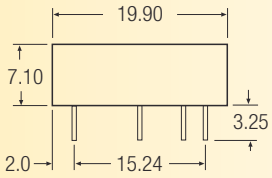


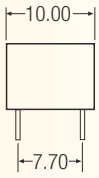
Pin Connections

Pin #	RD
1	+Vin
2	–Vin
4	–Vout
5	Com
6	+Vout

XX.X ± 0.5 mm
XX.XX ± 0.25 mm

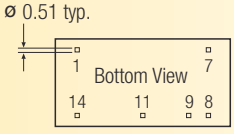
14 PIN DIP Package

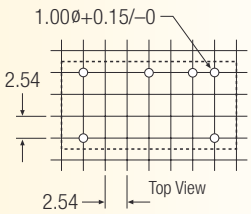




Dual Output

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