

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 (VDC)	Output Voltage (VDC)	Output Current (mA)	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

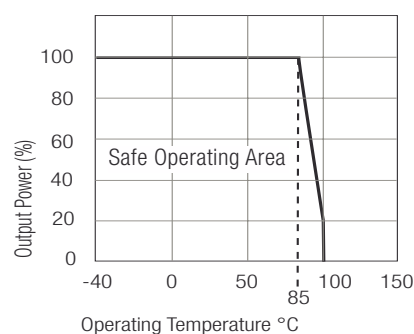
* add Suffix "P" for Continuous Short Circuit Protection, e.g. RD-0505D/P, RD-0505D/HP

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 Application Notes chapter "MTBF"	using MIL-HDBK 217F	988 x 10 ³ hours
(+85°C)		using MIL-HDBK 217F	135 x 10 ³ hours

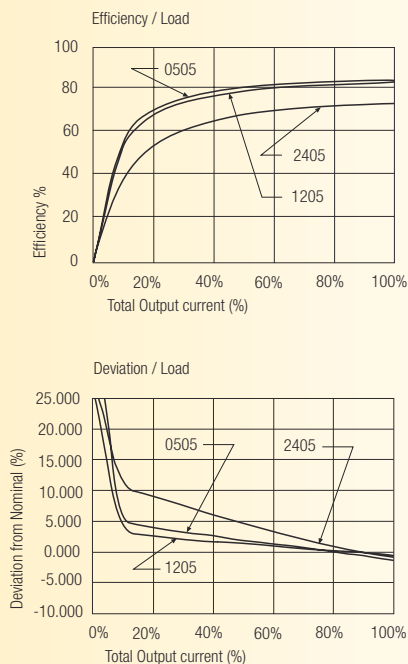
RECOM

Derating-Graph (Ambient Temperature)

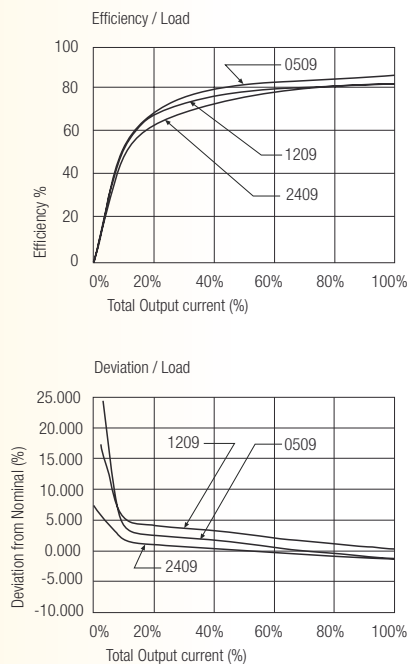


Typical Characteristics

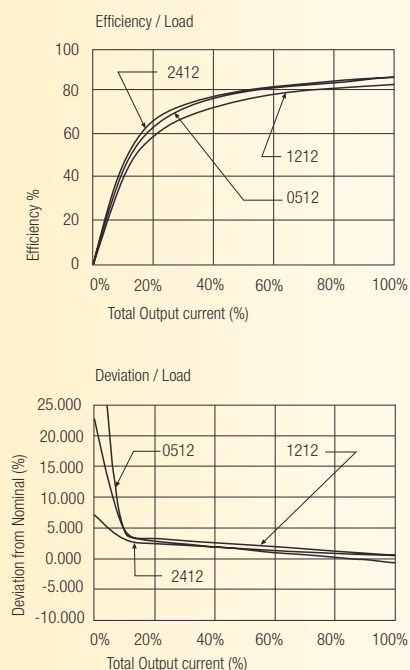
RD&RC-xx05D



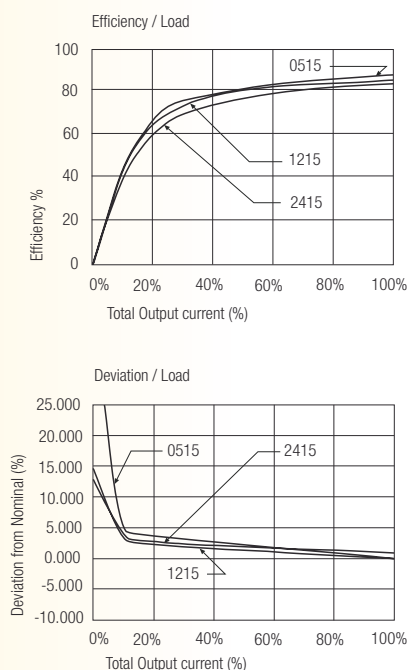
RD&RC-xx09D



RD&RC-xx12D



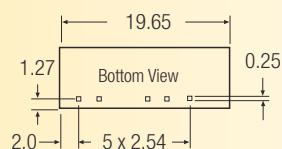
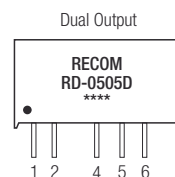
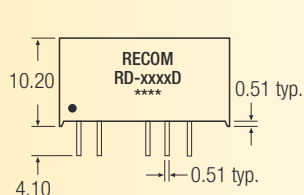
RD&RC-xx15D



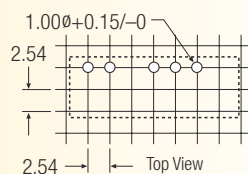
Package Style and Pinning (mm)

7 PIN SIP Package

3rd angle projection



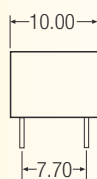
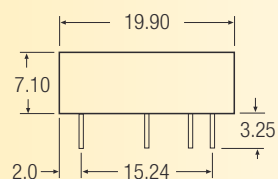
Recommended Footprint Details



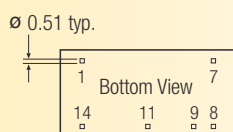
Pin Connections

Pin #	RD
1	+Vin
2	-Vin
4	-Vout
5	Com
6	+Vout
XX.X ± 0.5 mm	
XX.XX ± 0.25 mm	

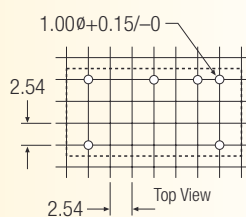
14 PIN DIP Package



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	