Features

Unregulated Converters

- Low Cost 2W Dual Output Converter
- Industry Standard SIP7 Packages
- Power Sharing on Outputs
- Optional Continuous Short Circuit Protected
- 1kVDC and 2kVDC Isolation Options
- UL94V-0 Package Material
- Efficiency to 86%

ECONOLINE
DC/DC-Converter
with 3 year Warranty

RECOM

2 Watt SIP7 Dual Output

RoHS 2011/65/EU 6/6

EN-60950-1 Certified

RD

Description

The RD series have been specifically designed for applications where dual power rails need to be created from a single rail supply and a low cost solution is required. With efficiencies up to 85%, the full output power is available over the operating temperature range -40°C to +85°C and the converters can be used in ambient temperatures of up to 100°C with derating. The wide selection of industry standard input voltage and output voltage options plus an I/O-Isolation of 1kVDC or 2kVDC makes these converters suitable for many industrial applications.

Selection Guide

Part Number SIP 7	2kV	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)	Max Capacitive Load[1]
RD-xx05D	(H)	5, 12, 24	±5	±200	75-82	±470µF
RD-xx12D	(H)	5, 12, 24	±12	±84	80-84	±330µF
RD-xx15D	(H)	5, 12, 24	±15	±66	82-86	±330µF
RD-xx24D	(H)	5, 12, 24	±24	±42	82-86	±100µF

xx = Input Voltage. Other input and output voltage combinations available on request.

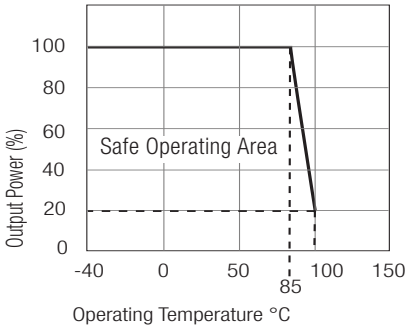
* add Suffix "P" for Continuous Short Circuit Protection, e.g. RD-0505D/P

* add Suffix „H" for 2kV Isolation, e.g. RD-0505D/H, RD-0505D/HP

Specifications (measured at T_A = 25°C, nominal input voltage, full load and after warm-up)

Input Voltage Range			±10%
Output Voltage Accuracy			±5%
Line Voltage Regulation			1.2%/1% of Vin typ.
Load Voltage Regulation		3.3V output types	20% max.
(10% to 100% full load)		5V output type	15% max.
		9V, 12V, 15V, 24V output types	10% max.
Output Ripple and Noise (20MHz limited)			150mVp-p max.
Operating Frequency			20kHz min. / 50kHz typ. / 85kHz max.
Efficiency at Full Load			70% min. / 80% typ.
Minimum Load = 0%			Specifications valid for 10% minimum load only.
Isolation Voltage		(tested for 1 second)	1000VDC
		(rated for 1 minute**)	500VAC / 60Hz
Isolation Voltage	H-Suffix	(tested for 1 second)	2000VDC
	H-Suffix	(rated for 1 minute**)	1000VAC / 60Hz
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
Packing Quantity			25 pcs per Tube
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
Certifications			
EN General Safety	Report: SPCLVD1109103		EN60950-1:2006 + A12:2011

Derating-Graph
(Ambient Temperature)

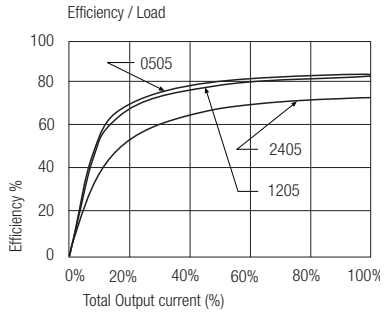


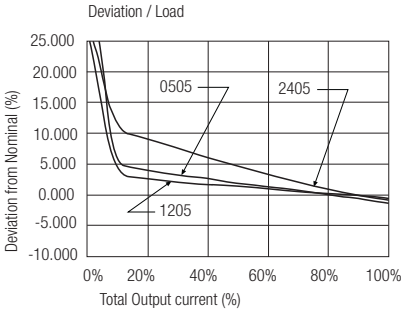
**Any data referred to in this datasheet are of indicative nature and based on our practical experience only. For further details, please refer to our Application Notes.

Refer to Application Notes

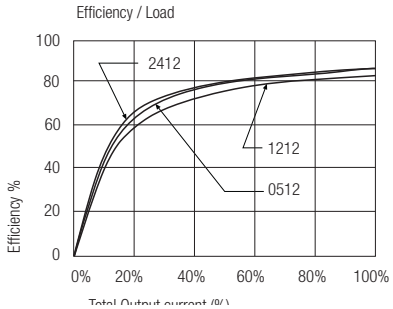
Typical Characteristics

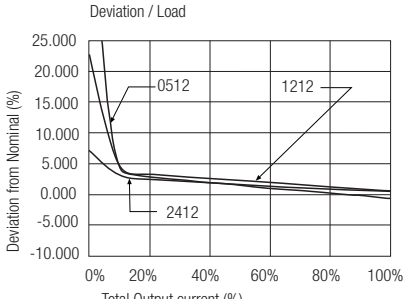
RD-xx05D



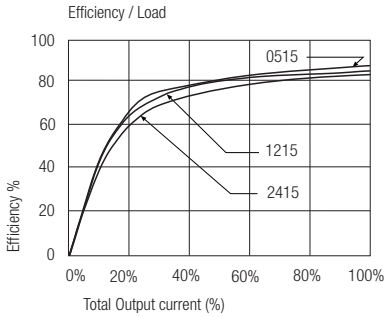


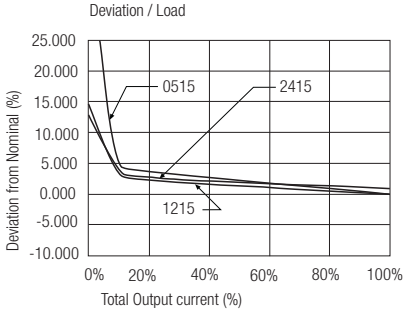
RD-xx12D





RD-xx15D





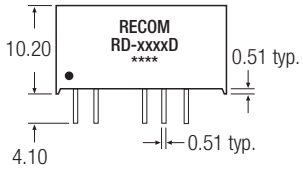
Notes

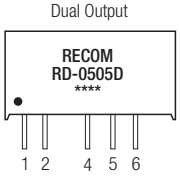
Note 1 Maximum capacitive load is defined as the capacitive load that will allow start up in under 1 second without damage to the converter.

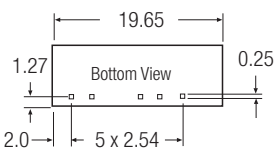
RD

Package Style and Pinning (mm)

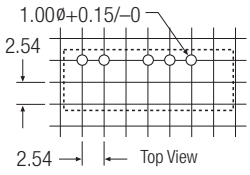
7 PIN SIP Package







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