Features

Unregulated Converters

- Micro Size SIP 6 Package
- Industry Standard Pinout
- Power Sharing on Dual Output Version
- 3kVDC Isolation
- Optional Continuous Short Circuit Protected
- Efficiency to 85 %

Description

The RBM Micro Size DC/DC-Converter complements Recom's industrial range of converters. This range is widely used for pcb distributed power systems and combines small package size, high efficiency, 3kVDC isolation and low output ripple.

The extended operating temperature range covering –40°C to +85°C is a standard feature. The full rated power can be taken from a single pin of this dual output converter, provided this does not exceed 1 Watt.

Selection Guide

Part Number SIP 6 Micro Size Package	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)
RBM-xx05S	5, 12	5	200	70-78
RBM-xx12S	5, 12	12	83	78-80
RBM-xx15S	5, 12	15	66	80-84
RBM-xx05D	5, 12	±5	±100	74-78
RBM-xx12D	5, 12	±12	±41	80-82
RBM-xx15D	5, 12	±15	±33	80-84

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

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

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	5V output type	15% max
(10% to 100% full load)	12, 15V output types	10% max
Output Ripple and Noise (20MHz limited)		100mVp-p max.
Operating Frequency		50kHz min. / 100kHz typ. / 105kHz max.
Efficiency at Full Load		70% min. / 80% typ.
No Load Power Consumption	Single	101mW min. / 126mW typ. / 220mW max.
	Dual	87mW min. / 130mW typ. / 230mW max.
Maximum Capacitive Load		33µF / ±10µF
Isolation Voltage	(tested for 1 second)	3000VDC min.
Rated Working Voltage	(long term isolation)	see Application Notes
Isolation Capacitance		20pF min. / 65pF max.
Isolation Resistance		15 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		1.3g
Packing Quantity		30 pcs per Tube
MTBF (+25°C) *Detailed Information see*	using MIL-HDBK 217F	1005 x 10^3 hours
(+85°C) *Application Notes chapter "MTBF"*	using MIL-HDBK 217F	195 x 10^3 hours

ECONOLINE
DC/DC-Converter

RECOM

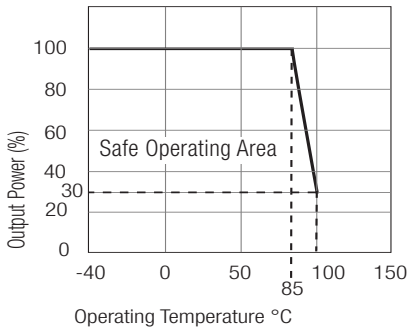
1 Watt SIP 6 Micro Size, Single & Dual Output

RoHS 2002/95/EC 6/6

EN-60950-1 Certified
EN-60601-1 Certified

RBM

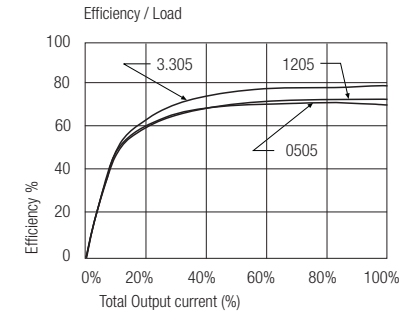
Derating-Graph
(Ambient Temperature)

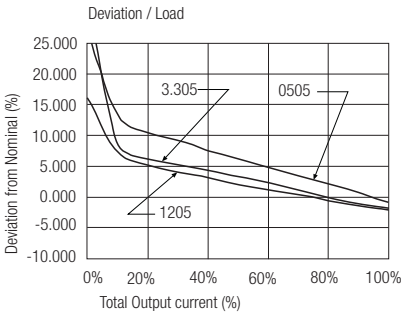


Refer to Application Notes

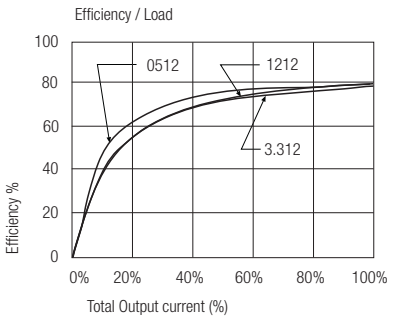
Typical Characteristics

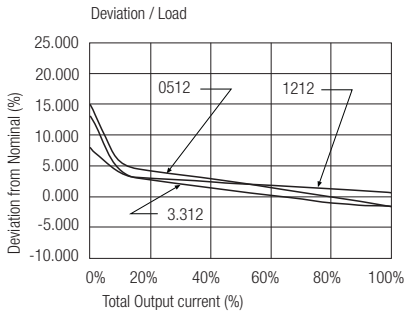
RBM-xx05S



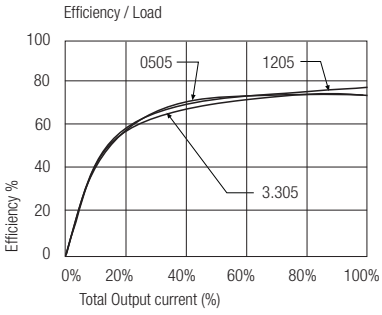


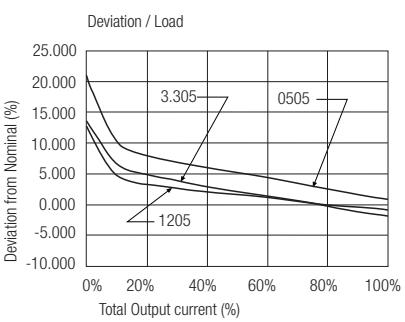
RBM-xx12S



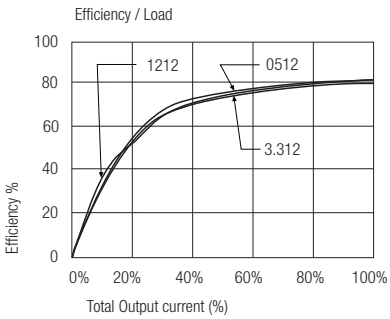


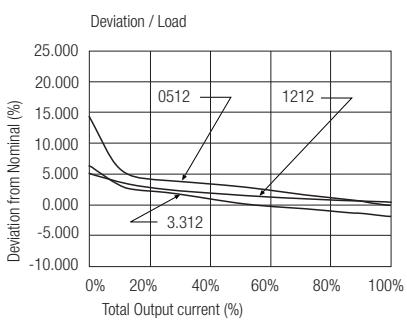
RBM-xx05D





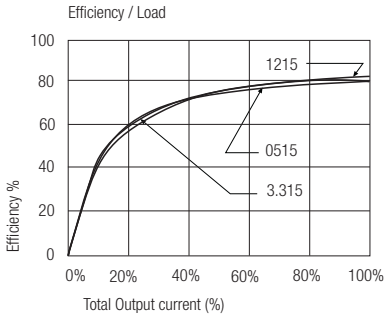
RBM-xx12D

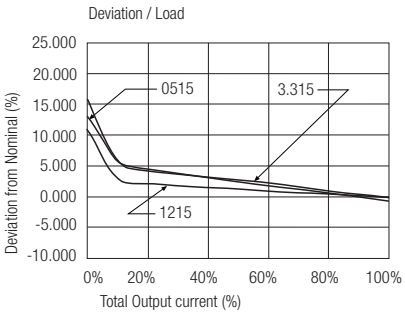




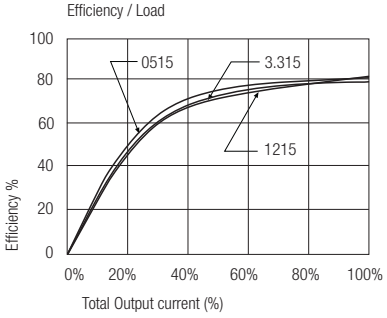
Typical Characteristics

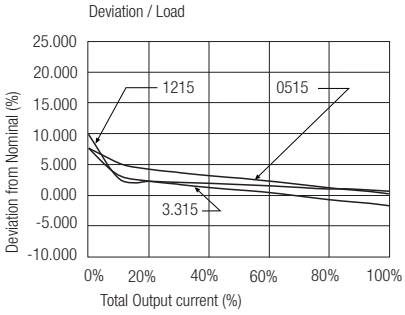
RBM-xx15S





RBM-xx15D



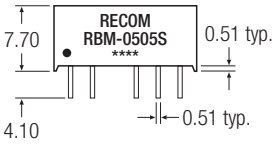


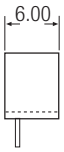
Package Style and Pinning (mm)

RBM

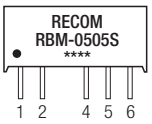
3rd angle projection

6 PIN SIP Micro Size Package

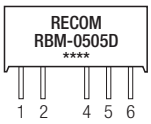




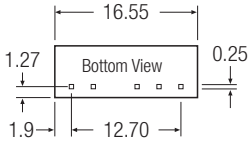
Single Output

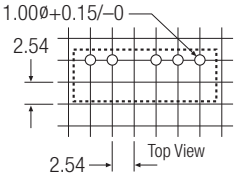


Dual Output



Recommended Footprint Details





Pin Connections

Pin #	Single	Dual
1	+Vin	+Vin
2	–Vin	–Vin
4	NC	–Vout
5	–Vout	Com
6	+Vout	+Vout

NC = No Connection
XX.X ± 0.5 mm
XX.XX ± 0.25 mm