

# ECONOLINE - DC/DC-Converter

RBM Series, 1 Watt, SIP6 Micro Size Package (Single & Dual Output)

New

RECOM

## Features

- New Micro Size SIP6 Package
- 3kVDC Isolation
- Efficiency at Full Load up to 80%
- Oper. Temp. Range  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
- UL 94V-0 Package Material
- Industrie Standard Pinout



## Selection Guide

Part Number SIP6 Micro Size Package	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)
RBM-XX1.8S	1.8, 3.3, 5, 9, 12, 15, 24	1.8	555
RBM-XX3.3S	1.8, 3.3, 5, 9, 12, 15, 24	3.3	303
RBM-XX05S	1.8, 3.3, 5, 9, 12, 15, 24	5	200
RBM-XX09S	1.8, 3.3, 5, 9, 12, 15, 24	9	111
RBM-XX12S	1.8, 3.3, 5, 9, 12, 15, 24	12	83
RBM-XX15S	1.8, 3.3, 5, 9, 12, 15, 24	15	66
RBM-XX24S	1.8, 3.3, 5, 9, 12, 15, 24	24	42
RBM-XX1.8D	1.8, 3.3, 5, 9, 12, 15, 24	$\pm 1.8$	$\pm 278$
RBM-XX3.3D	1.8, 3.3, 5, 9, 12, 15, 24	$\pm 3.3$	$\pm 152$
RBM-XX05D	1.8, 3.3, 5, 9, 12, 15, 24	$\pm 5$	$\pm 100$
RBM-XX09D	1.8, 3.3, 5, 9, 12, 15, 24	$\pm 9$	$\pm 55$
RBM-XX12D	1.8, 3.3, 5, 9, 12, 15, 24	$\pm 12$	$\pm 41$
RBM-XX15D	1.8, 3.3, 5, 9, 12, 15, 24	$\pm 15$	$\pm 33$
RBM-XX24D	1.8, 3.3, 5, 9, 12, 15, 24	$\pm 24$	$\pm 21$

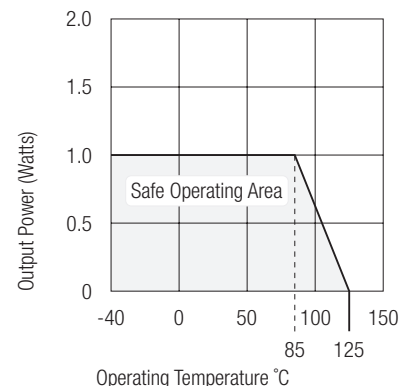
## Description

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  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  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.

## Specifications (Core Operating Area) and Operating Temperature / Derating-Graph

Input Voltage		$\pm 10\%$
Input Filter		Capacitor type
Output Accuracy		$\pm 5\%$
Line Voltage Regulation		1,2%/1% V Input
Load Voltage Regulation (10% to 100% full load)	1.8V, 3.3V output types 5V output type 9V, 12V, 15V, 24V output types	20% max. 15% max. 10% max.
Ripple and Noise (20MHz limited)		100mVp-p max.
Efficiency at Full Load		70% min.
Isolation Voltage		3000 VDC min.
Isolation Resistance (Viso = 500VDC)		15 G $\Omega$ min.
Isolation Capacitance		20pF min./65pF max.
Short Circuit Protection		1 sec.
Switching Frequency at Full Load		100kHz typ.
Operating Temperature		$-40^{\circ}\text{C}$ to $+85^{\circ}\text{C}$ (see Graph)
Storage Temperature		$-55^{\circ}\text{C}$ to $+125^{\circ}\text{C}$
Package Weight		1.3g



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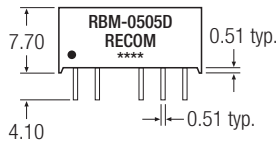
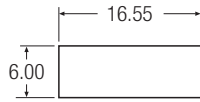


# RECOM

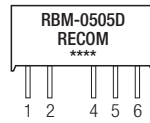
## Package Style and Pinning (mm)

### 6 PIN SIP Micro Size Package

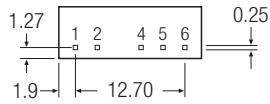
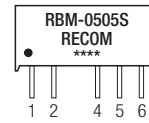
3rd angle projection



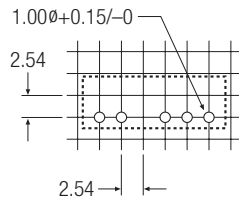
Dual Output



Single 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