

ECONOLINE - DC/DC-Converter

RB Series, 1 Watt, SIP7 (Single & Dual Output)

RECOM

Features

- Dual Output from a Single Input Rail
- Industry Standard Pinout
- 1kVDC & 2kVDC Isolation
- Custom Solutions Available
- UL94V-0 Package Material
- Efficiency to 80%

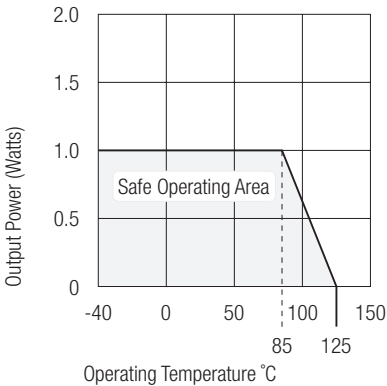


Selection Guide

| Part Number | | Input Voltage | Output Voltage | Output Current | Efficiency |
|-------------|-------|----------------------------|----------------|----------------|------------|
| SIP 7 | (2kV) | (VDC) | (VDC) | (mA) | (%) |
| RB-XX1.8S | (H) | 1.8, 3.3, 5, 9, 12, 15, 24 | 1.8 | 555 | 70 |
| RB-XX3.3S | (H) | 1.8, 3.3, 5, 9, 12, 15, 24 | 3.3 | 303 | 75 |
| RB-XX05S | (H) | 1.8, 3.3, 5, 9, 12, 15, 24 | 5 | 200 | 70-78 |
| RB-XX09S | (H) | 1.8, 3.3, 5, 9, 12, 15, 24 | 9 | 111 | 70-78 |
| RB-XX12S | (H) | 1.8, 3.3, 5, 9, 12, 15, 24 | 12 | 84 | 78-82 |
| RB-XX15S | (H) | 1.8, 3.3, 5, 9, 12, 15, 24 | 15 | 66 | 80-84 |
| RB-XX24S | (H) | 1.8, 3.3, 5, 9, 12, 15, 24 | 24 | 42 | 74-85 |
| RB-XX1.8D | (H) | 1.8, 3.3, 5, 9, 12, 15, 24 | ±1.8 | ±278 | 70 |
| RB-XX3.3D | (H) | 1.8, 3.3, 5, 9, 12, 15, 24 | ±3.3 | ±152 | 70 |
| RB-XX05D | (H) | 1.8, 3.3, 5, 9, 12, 15, 24 | ±5 | ±100 | 70-78 |
| RB-XX09D | (H) | 1.8, 3.3, 5, 9, 12, 15, 24 | ±9 | ±56 | 75-80 |
| RB-XX12D | (H) | 1.8, 3.3, 5, 9, 12, 15, 24 | ±12 | ±42 | 78-84 |
| RB-XX15D | (H) | 1.8, 3.3, 5, 9, 12, 15, 24 | ±15 | ±33 | 80-84 |
| RB-XX24D | (H) | 1.8, 3.3, 5, 9, 12, 15, 24 | ±24 | ±21 | 80-84 |

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

| | | |
|---|--|----------------------------------|
| Input Voltage | ±10% | |
| Input Filter | Capacitor Type | |
| Output Voltage Accuracy | ±5% | |
| Line Voltage Regulation | 1,2%/1% V Input | |
| Load Voltage Regulation (10% to 100% full load) | 1.8V, 3.3V ouput types 5V ouput type 9V, 12V, 15V, 24V ouput types | 20% max. 15% max. 10% max. |
| Ripple and Noise (20MHz limited) | Single output types Dual output types | 100mVp-p max. ±75mVp-p max. |
| Efficiency at Full Load | 70% min. | |
| Isolation Voltage | 1.000VDC min. (also available with 2.000VDC, Suffix „H“) | |
| Isolation Resistance (Viso = 500VDC) | 10 GΩ min. | |
| Isolation Capacitance | 20pF min./75pF max. | |
| Short Circuit Protection | 1 Second | |
| Switching Frequency at Full Load | 100kHz typ. | |
| Operating Temperature | -40°C to +85°C (see Graph) | |
| Storage Temperature | -55°C to +125°C | |
| Package Weight | Single output types | 2.2g |



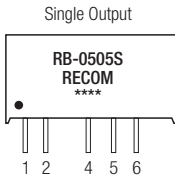
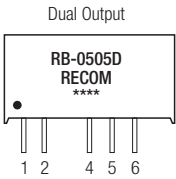
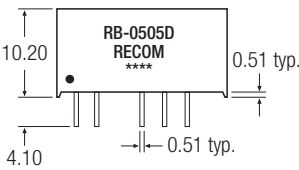
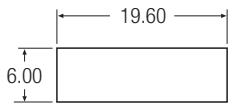
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Package Style and Pinning (mm)

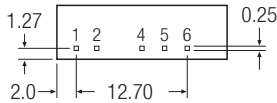
8 PIN DIP Package



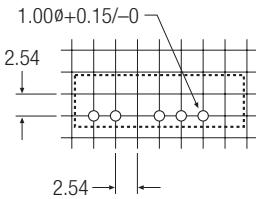
Pin Connections

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

NC = No Connection



Recommended Footprint Details



XX.X ± 0.5 mm
XX.XX ± 0.25 mm