

# ECONOLINE - DC/DC-Converter

ROM Series, 1 Watt, SIP4 Micro Size Package (Single Output)



# RECOM

## Features

- New Micro Size SIP4 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
- Industry Standard Pinout
- Custom Solutions Available
- Cost Effective



## Selection Guide

| Part Number<br>SIP4 Micro Size Pack. | Input Voltage<br>(VDC)     | Output Voltage<br>(VDC) | Output Current<br>(mA) |
|--------------------------------------|----------------------------|-------------------------|------------------------|
| ROM-XX1.8S                           | 1.8, 3.3, 5, 9, 12, 15, 24 | 1.8                     | 555                    |
| ROM-XX3.3S                           | 1.8, 3.3, 5, 9, 12, 15, 24 | 3.3                     | 303                    |
| ROM-XX05S                            | 1.8, 3.3, 5, 9, 12, 15, 24 | 5                       | 200                    |
| ROM-XX09S                            | 1.8, 3.3, 5, 9, 12, 15, 24 | 9                       | 111                    |
| ROM-XX12S                            | 1.8, 3.3, 5, 9, 12, 15, 24 | 12                      | 83                     |
| ROM-XX15S                            | 1.8, 3.3, 5, 9, 12, 15, 24 | 15                      | 66                     |
| ROM-XX24S                            | 1.8, 3.3, 5, 9, 12, 15, 24 | 24                      | 41                     |

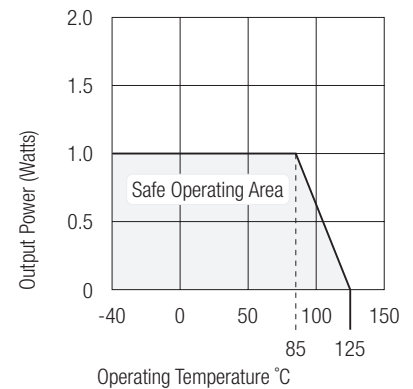
## Description

The ROM Micro Size DC/DC-Converter has been designed for isolating resp. converting DC Power Rails. It provides a small micro-size package, high efficiency, low output ripple, high 3kVDC Isolation and an extended  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  operating temperature range.

State of the art packaging and automated manufacturing ensures cost-effectiveness and short lead times.

## 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<br>(10% to 100% full load) | 1.8V, 3.3V output types<br>5V output type<br>9V, 12V, 15V, 24V output types | 20% max.<br>15% max.<br>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 $\Omega$ min.   |
| Isolation Capacitance                              |   | 20pF min./75pF 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                                     |   | 1.0g   |



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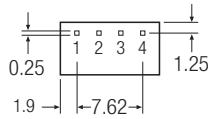
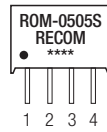
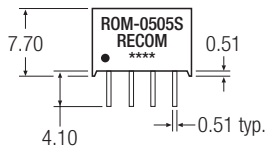
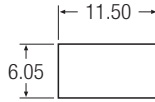


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## Package Style and Pinning (mm)

### 7 PIN SIP Micro Size Package

3rd angle projection

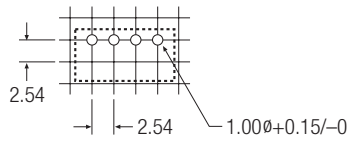


### Pin Connections

| Pin # | Single |
|-------|--------|
| 1     | -Vin   |
| 2     | +Vin   |
| 3     | -Vout  |
| 4     | +Vout  |

NC = No Connection

### Recommended Footprint Details



XX.X ± 0.5 mm  
XX.XX ± 0.25 mm