

# ECONOLINE - DC/DC-Converter

RT Series, 1 Watt, DIP14, Isolated Outputs (Dual Output)

RECOM

### Features

- Twin Independent Outputs
- Output/Output Isolation 1kVDC
- Power Sharing on Outputs
- Input/Output Isolation 1kVDC
- No Heatsink Required
- Toroidal Magnetics
- No Extern. Components Required
- Custom Solutions Available
- UL94V-0 Package Material
- Efficiency to 80%

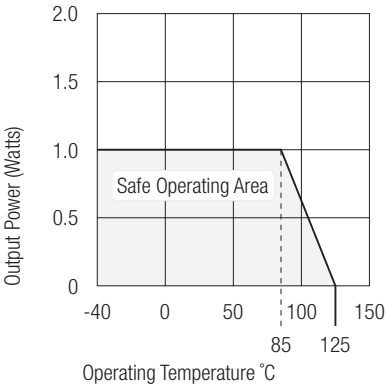


### Selection Guide

| Part Number<br>DIP 14 | Input Voltage<br>(VDC) | Output Voltage<br>(V1VDC) | Output Voltage<br>(V2VDC) | Output Current<br>(mA) | Efficiency<br>(%) |
|-----------------------|------------------------|---------------------------|---------------------------|------------------------|-------------------|
| RT-XX1.81.8           | 1.8, 3.3, 5, 9, 12, 24 | 1.8                       | 1.8                       | 278/278                | 70                |
| RT-XX3.33.3           | 1.8, 3.3, 5, 9, 12, 24 | 3.3                       | 3.3                       | 132/152                | 70                |
| RT-XX0505             | 1.8, 3.3, 5, 9, 12, 24 | 5                         | 5                         | 100/100                | 70-78             |
| RT-XX0909             | 1.8, 3.3, 5, 9, 12, 24 | 9                         | 9                         | 55/55                  | 75-80             |
| RT-XX1212             | 1.8, 3.3, 5, 9, 12, 24 | 12                        | 12                        | 42/42                  | 78-84             |
| RT-XX1515             | 1.8, 3.3, 5, 9, 12, 24 | 15                        | 15                        | 33/33                  | 80-84             |
| RT-XX0524             | 1.8, 3.3, 5, 9, 12, 24 | 24                        | 24                        | 21/21                  | 80-84             |

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

|                                                    |                                                                             |                                  |
|----------------------------------------------------|-----------------------------------------------------------------------------|----------------------------------|
| Input Voltage                                      | $\pm 10\%$                                                                  |                                  |
| Input Filter                                       | Capacitor Type                                                              |                                  |
| Output Voltage 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                                  | 1.000VDC min.                                                               |                                  |
| Isolation Resistance (Viso = 500VDC)               | 10 G $\Omega$ min.                                                          |                                  |
| Isolation Capacitance                              | 20pF min./94pF 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                                     | 2.7g                                                                        |                                  |



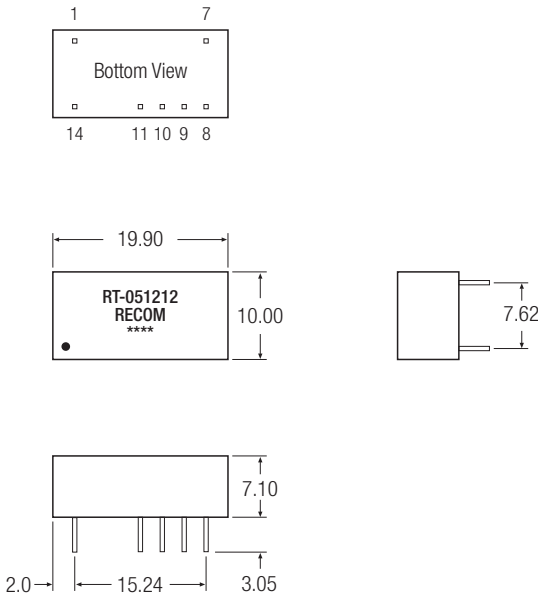
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## Package Style and Pinning (mm)

### 14 PIN DIP Package

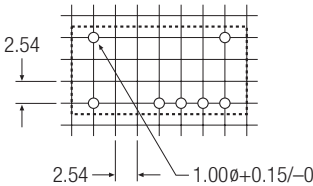


### Pin Connections

| Pin # | Dual    |
|-------|---------|
| 1     | -Vin    |
| 7     | NC      |
| 8     | -Vout 2 |
| 9     | +Vout 2 |
| 10    | -Vout 1 |
| 11    | +Vout 1 |
| 14    | +Vin    |

NC = No Connection

### Recommended Footprint Details



XX.X ± 0.5 mm  
XX.XX ± 0.25 mm