

EUROLINE - DC/DC-Converter

Rxxlxx-Series, 2 Watt, SIP4, Isolated (Single Output)

RECOM

Features

- Wide Temperature performance at full 2 Watt load, -40°C to 85°C
- Industry Standard Pinout
- 1kVDC Isolation
- Efficiency to 85%
- UL 94V-0 Package Material
- Internal SMD Construction
- MTTF up to 2.9 Million Hours



Selection Guide 5V, 12V Input Types

| Part Number | Nom. Input Voltage (VDC) | Rated Output Voltage (VDC) | Rated Output Current (mA) | Input Current at Rated Load (mA) | Efficiency (%) | Isolation Capacitance (pF) | Package Style |
|-------------|--------------------------|----------------------------|---------------------------|----------------------------------|----------------|----------------------------|---------------|
| R05I05 | 5 | 5 | 400 | 513 | 78 | 19 | SIP4 |
| R05I09 | 5 | 9 | 222 | 492 | 81 | 27 | |
| R05I12 | 5 | 12 | 167 | 479 | 84 | 32 | |
| R05I15 | 5 | 15 | 133 | 481 | 83 | 27 | |
| R12I05 | 12 | 5 | 400 | 207 | 81 | 28 | |
| R12I09 | 12 | 9 | 222 | 198 | 84 | 42 | |
| R12I12 | 12 | 12 | 167 | 197 | 85 | 46 | |
| R12I15 | 12 | 15 | 133 | 197 | 85 | 54 | |

Absolute Maximum Ratings

| | | |
|----------------------------|------------------------|---------------|
| Input Voltage V_{IN} | 05V types 12V types | 7VDC 15VDC |
| Internal Power Dissipation | | 805mW |
| Lead Temperature | | 300°C |

Electrical Specifications (measured at $T_A = 25^\circ\text{C}$, at nominal input voltage and rated output current unless otherwise specified)

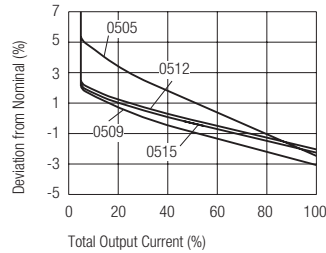
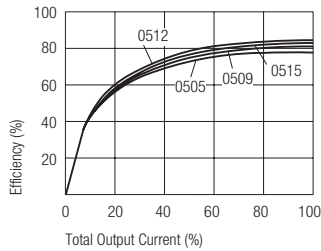
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|---|-------------------------|---|
| Input Voltage Range V_{IN} (continuous operation) | 5V types 12V types | 4.5VDC min. / 5.5VDC max. 10.8VDC min. / 13.2VDC max. |
| Reflected Ripple Current (depending on the type) | | 23 mA p-p min. to 38 mA p-p max. |
| Voltage Set Point Accuracy | | see Tolerance Envelope |
| Line Regulation (high V_{IN} to low V_{IN}) | | 1.0% min. / 1.2% max. of V_{IN} |
| Load regulation (depending on the type) | | 3.7% min. / 8.5% max. |
| Ripple and Noise (BW=DC to 20MHz) (depending on the type) | | 45mVp-p min. / 200mVp-p max. |
| Isolation Voltage (flash tested for 1 second) | | 1000VDC min. |
| Test Voltage (50Hz, 10 seconds) | | 1000 Vpk min. |
| Resistance (Viso = 500V) | | 10 G Ω min. |
| Switching Frequency | | 90kHz typ. |
| Package Weight | SIP types | 2.0 g |
| Storage Temperature Range | | -50°C to +130°C |
| Operating Temperature Range (all output types) | | -40°C min. to +85°C max. (see graph) |
| Case Temperature Above Ambient (depending on the type) | | +36°C min. / +45°C max. |
| MTTF ¹⁾ (depending on the type) | -40°C +25°C +85°C | 417kHrs min. / 3970kHrs max. 328kHrs min. / 2327kHrs max. 222kHrs min. / 934kHrs max. |

¹⁾ Calculated using MIL-HDBK-217F with nominal input voltage at full load.

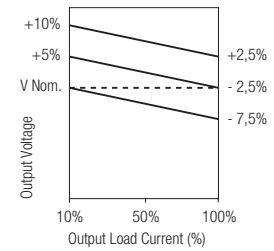
Please contact us, if you need exact parameters for the converter you have selected.

Typical Characteristics, Tolerance Envelope and Derating Graph

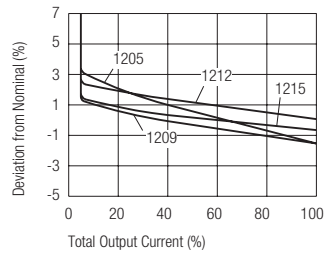
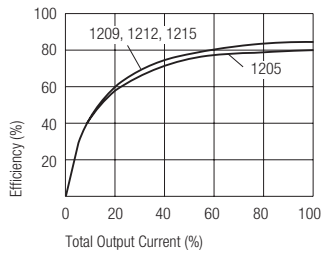
R05lxx



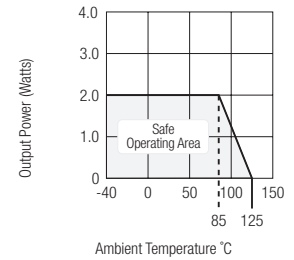
Tolerance Envelope



R12lxx

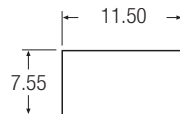
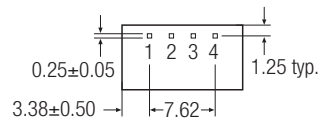
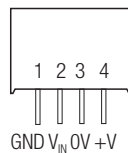


Temper. Derating Graph



Package Style and Pinning (mm)

4 Pin SIP Package Style



Recommended Footprint Details

