

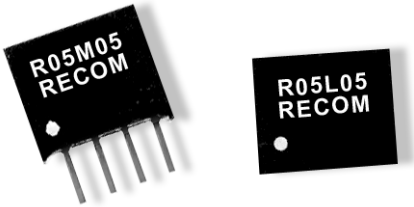
# EUROLINE - DC/DC-Converter

RxxL and RxxM Series, 0.25 Watt, DIP8/SIP4, 1kVDC Isolation (Single Output)

RECOM

### Features

- High Efficiency for Low Power Applications
  - Pin Compatible with Industrie Standard
  - Single Output Rail
  - UL 94V-0 Package Material
- No Heatsink Required
  - Toroidal Magnetics
  - Fully Encapsulated
  - No External Components Required
  - Custom Solutions Available



### Selection Guide 3.3V, 5V and 12V input types

Part Number	Output Voltage (V)	Output Current (mA)	Package Style
RxxL03	3.3	76	DIP8
RxxL05	5	50	
RxxL09	9	28	
RxxL12	12	21	
RxxL15	15	16	
RxxM03	3.3	76	SIP4
RxxM05	5	50	
RxxM09	9	28	
RxxM12	12	21	
RxxM15	15	16	

### Typical Isolation Capittance (pF)

Part Number	Output Voltage (V)				
	03V	05V	09V	12V	15V
R03L/Mxx	—	25	70	38	38
R05L/Mxx	25	29	37	41	40
R12L/Mxx	—	38	40	43	45

### Absolute Maximum Ratings Over Operating Free Air Temperature Range

Input Voltage $V_{IN}$	3V types	5V
Input Voltage $V_{IN}$	5V types	7V
Input Voltage $V_{IN}$	12V types	15V
Output Power Total		250mW
Short Circuit Duration		1s
Isolation Voltage (flash tested for 1 second)		1000VDC
Operating Free Air Temperature Range (requires a minimum of 10 mm air space around the component)	-40°C to 70°C (see derating Curve)	
Storage Temperature Range	-55°C to 150°C	
Lead Temperature (1.5 mm from case for 10 seconds)	300 °C	

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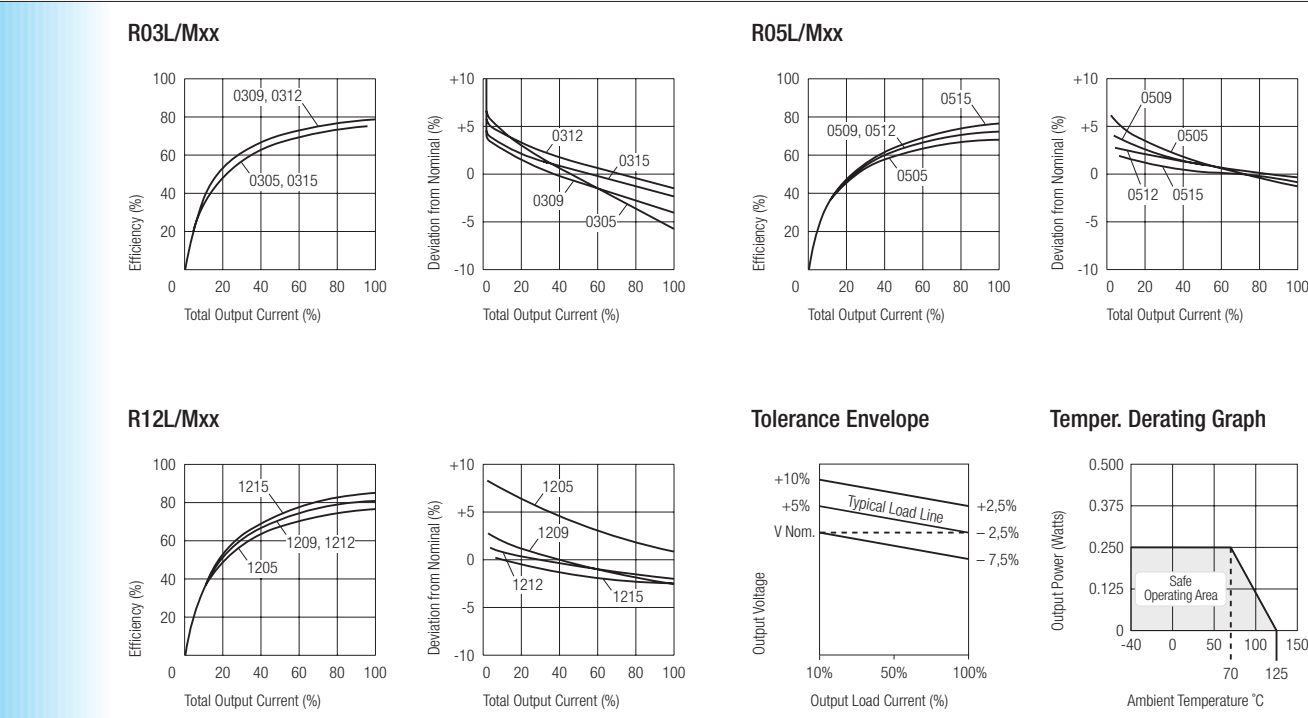
## Electrical Specifications (measured at T<sub>A</sub> = 25°C, at nominal input voltage and rated output current unless otherwise specified)

Input Voltage Range V <sub>IN</sub> (continuous operation)	3V types	3.3VDC ±10%
	5V types	5VDC ±10%
	12V types	12VDC ±10%
Output Voltage Accuracy (depending on the type)	see Tolerance Envelope Graph	
Load Voltage Regulation (10% load to 100% full load)	3.3V and 5V output types	15% max.
	9V, 12V and 15V output types	10% max.
Line Voltage Regulation (10% load to 100% full load)	1.2% / 1.0% of V <sub>IN</sub>	
Input Reflected Ripple (20MHz band limited)	3V types	50mVp-p max.
	5V and 12V types	40mVp-p max.
Output Ripple (20MHz band limited)	3V types	75mVp-p max.
	5V and 12V types	100mVp-p max.
Isolation Voltage (flash tested for 1 second)	1000VDC	
Insulation Resistance at 500VDC	1000MΩ min.	
Switching Frequency at Full Load (typical)	100kHz max.	
Package Weight	SIP types	1.4 g
	DIP types	1.5 g
Efficiency (at full load)	3.3V and 5V output types	70% typ. / 60% min.
	9V, 12V and 15V output types	75% typ. / 70% min.
Operating Free Air Temperature Range (requires a minimum of 10 mm air space around the component)	0°C to 70°C (see derating Curve)	
Temperature Drift (V <sub>OUT</sub> )	0.03% per °C max.	
Temperature Rise above Ambient (at full load)	10°C max.	
No Load Power Consumption (typical)	3V types	50mW typ.
	5V and 12V types	30mW typ.
MTTF <sup>1)</sup> (depending on the type)	-25°C	273kHrs min. / 3293kHrs max.
	+25°C	237kHrs min. / 2767kHrs max.
	+75°C	208kHrs min. / 2319kHrs max.

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

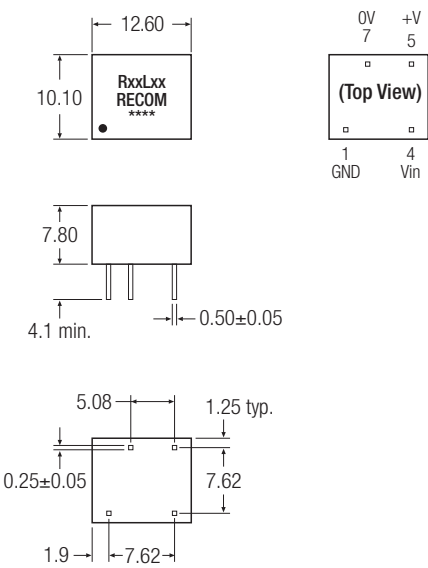
Please contact us, if you need exact parameters for the converter you have selected.

## Typical Characteristics, Tolerance Envelope and Temperature Derating Graph

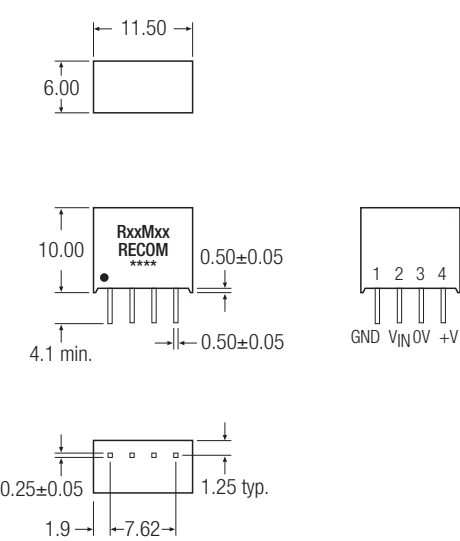


Package Style and Pinning (mm)

8 Pin DIP Package Style



4Pin SIP Package Style



Recommended Footprint Details

