

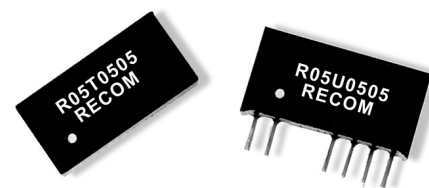
# EUROLINE - DC/DC-Converter

RxxT and RxxU Series, 1 Watt, DIP14/SIP7, Isolated (Twin Independent Output)

# RECOM

## Features

- Output / Output Isolation 1kVDC
- Input / Output Isolation 1kVDC
- Efficiency to 808%
- UL 94V-0 Package Material
- Internal SMD Construction
- Toroidal Magnetics
- MTTF up to 1.9 Million Hours
- Power Sharing on Outputs



## Selection Guide 5V and 12V input types

Part Number	Output Voltage 1 (VDC)	Output Voltage 2 (VDC)	Output Current 1 (mA)	Output Current 2 (mA)	Package Style
RxxT0503	5	3.3	100	152	DIP14
RxxT0505	5	5	100	100	
RxxT0509	5	9	100	56	
RxxT0512	5	12	100	42	
RxxT0515	5	15	100	34	
RxxU0503	5	3.3	100	152	SIP7
RxxU0505	5	5	100	100	
RxxU0509	5	9	100	56	
RxxU0512	5	12	100	42	
RxxU0515	5	15	100	34	

## Absolute Maximum Ratings Over Operating Free Air Temperature Range

Input Voltage $V_{IN}$	5V types	7V
	12V types	15V
Output Power Total		1W
Short Circuit Duration <sup>1)</sup>		1s
Input to Output Isolation Voltage (flash tested for 1 second)		1000VDC
Output to Output Isolation Voltage (flash tested for 1 second)		1000VDC
Operating Free Air Temperature Range (requires a minimum of 10 mm air space around the component)		0°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

<sup>1)</sup> Supply voltage must be discontinued at the end of the short circuit duration.

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

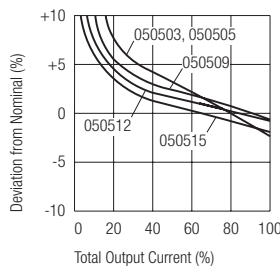
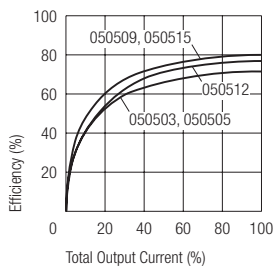
Input Voltage Range $V_{IN}$ (continuous operation)	5V types 12V input types	$5V \pm 10\%$ $12V \pm 10\%$
Load Voltage Regulation (10% load to 100% full load)	3.3V and 5V output types 9V, 12V and 15V output types	15% max. 10% max.
Line Voltage Regulation		1.2% / 1.0% of $V_{IN}$
Output Voltage Accuracy		See Tolerance Envelope
Input Reflected Ripple (20MHz band limited)		80mVp-p max.
Output Ripple (20MHz band limited)		75mVp-p max.
Insulation Resistance (at 500VDC)		1000M $\Omega$ min.
Efficiency (at full load)	3.3V and 5V output types 9V, 12V and 15V output types	65% min. / 70% typ. 70% min. / 80% typ.
Temperature Drift ( $V_{OUT}$ )		0.03% per $^\circ\text{C}$ max.
Temperature Rise above Ambient (at full load)		8 $^\circ\text{C}$ max.
Switching Frequency at Full Load (depending on the type)		100kHz typ.
Package Weight		2.3 g
MTTF <sup>1)</sup> (depending on the type)	-25 $^\circ\text{C}$ +25 $^\circ\text{C}$ +70 $^\circ\text{C}$	170kHrs min. / 1900kHrs max. 148kHrs min. / 1615kHrs max. 130kHrs min. / 1350kHrs max.

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

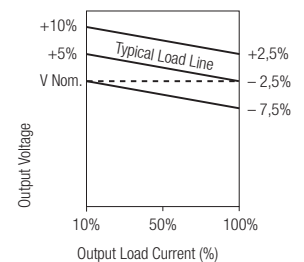
Please contact us, if you need exact parameters for the converter you have selected.

## Typical Characteristics, Tolerance Envelope and Temperature Derating Graph

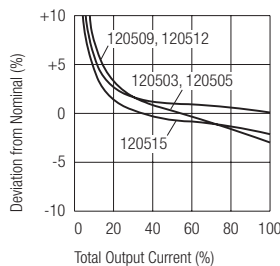
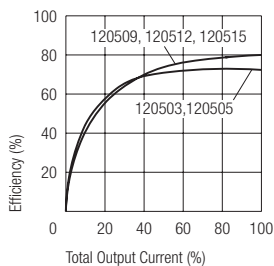
**R05T/Uxx**



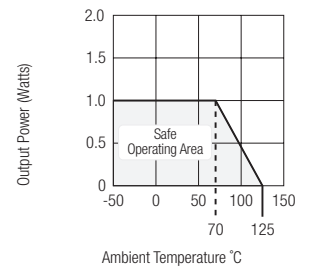
**Tolerance Envelope**



**R12T/Uxx**

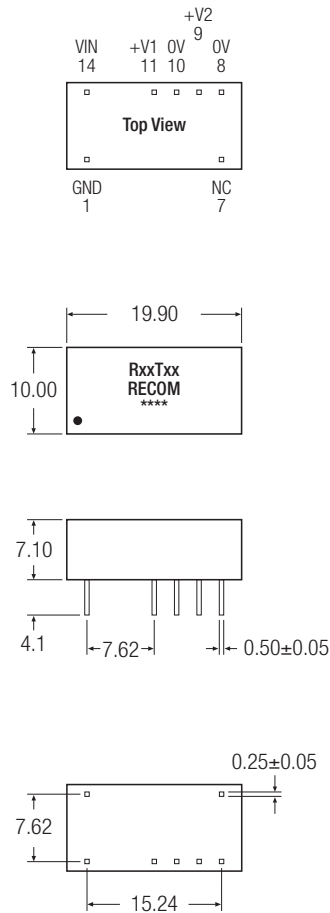


**Temperature Derating Graph**

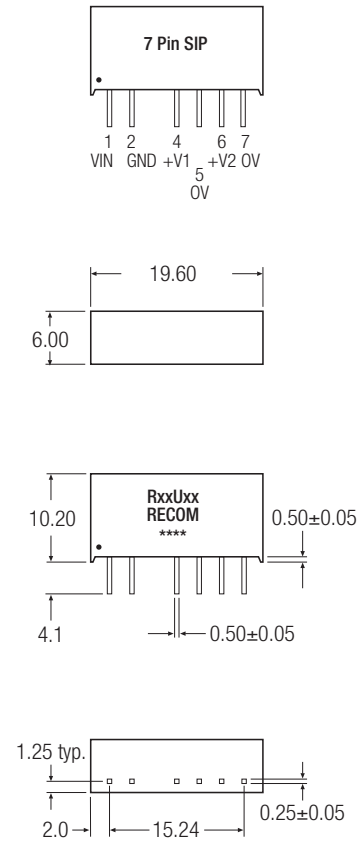


## Package Style and Pinning (mm)

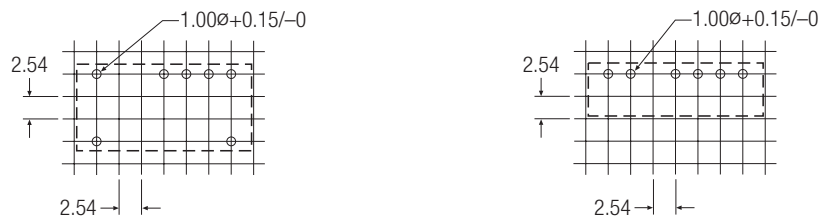
### 14 Pin DIP Package Style



### 7 Pin SIP Package Style



### Recommended Footprint Details



XX.X ± 0.5 mm  
XX.XX ± 0.25 mm