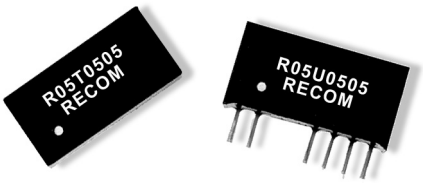
EUROLINE - DC/DC-Converter

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 [1)]		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

[1)]. Supply voltage must be discontinued at the end of the short circuit duration.

Electrical Specifications (measured at T_A = 25°C, at nominal input voltage and rated output current unless otherwise specified)

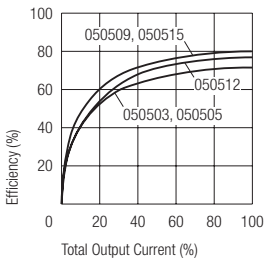
Input Voltage Range V_{IN} (continuous operation)	5V types 12V input types	5V±10% 12V±10%
Load Voltage Regulation (10% load to 100% full load)	3.3V and 5V output types 9V, 12V and 15V output types	15% max. 10% max.
Line Voltage Regulation		1.2% / 1.0% of V_{IN}
Output Voltage Accuracy		See Tolerance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

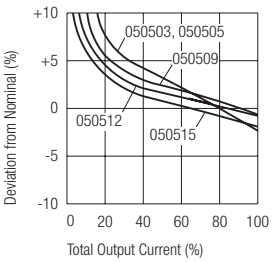
[1]. Calculated using MIL-HDBK-217F with nominal input voltage at full load.

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

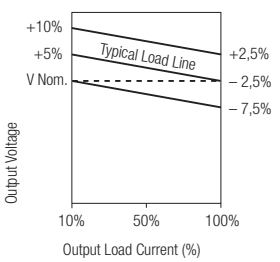
Typical Characteristics, Tolerance Envelope and Temperature Derating Graph

R05T/Uxx

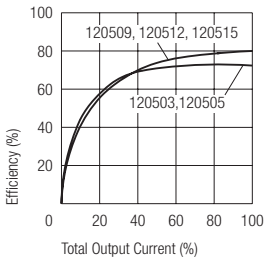


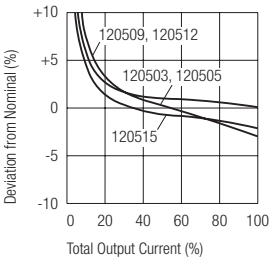


Tolerance Envelope

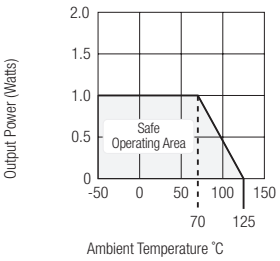


R12T/Uxx



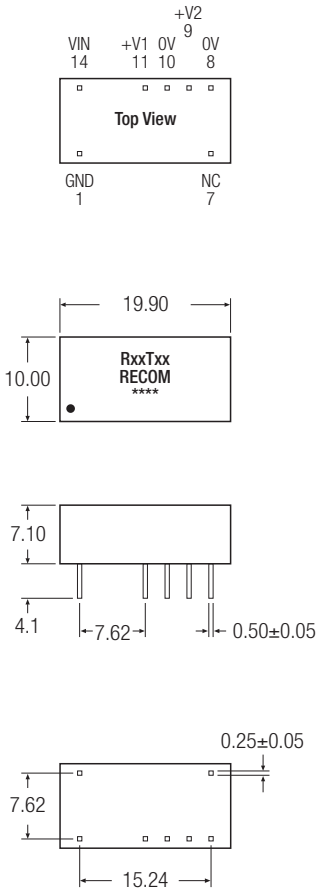


Temperature Derating Graph

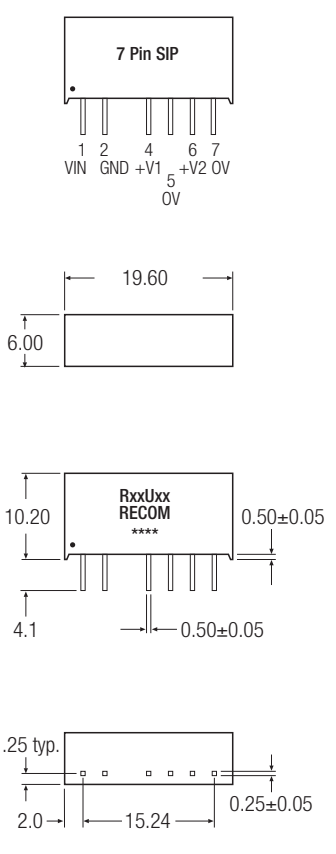


Package Style and Pinning (mm)

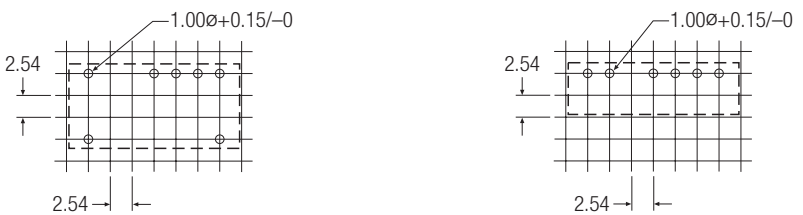
14 Pin DIP Package Style



7 Pin SIP Package Style



Recommended Footprint Details



XX.X ± 0.5 mm
XX.XX ± 0.25 mm