

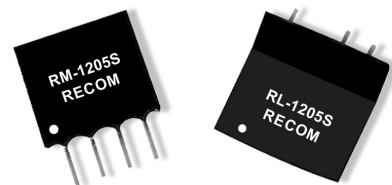
# ECONOLINE - DC/DC-Converter

RM and RL Series, 0.25 Watt, SIP4/DIP8 (Single Output)

# RECOM

## Features

- High Efficiency for Low Power Applications
- Pin Compatible with Industry Standard
- Single Output Rail
- UL 94V-0 Package Material
- Toroidal Magnetics
- Fully Encapsulated

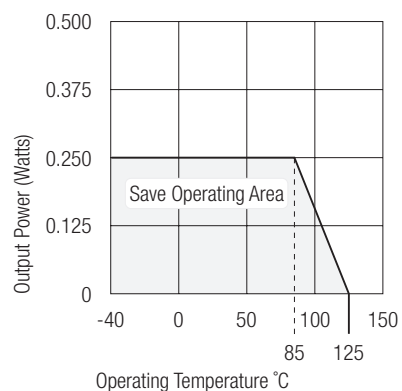


## Selection Guide

Part Number SIP4	Part Number DIP8	2kV	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)
RM-XX1.8S	RL-XX1.8S (H)		1.8, 3.3, 5, 9, 12, 15, 24	1.8	139	70
RM-XX3.3S	RL-XX3.3S (H)		1.8, 3.3, 5, 9, 12, 15, 24	3.3	76	65-70
RM-XX05S	RL-XX05S (H)		1.8, 3.3, 5, 9, 12, 15, 24	5	50	66-72
RM-XX09S	RL-XX09S (H)		1.8, 3.3, 5, 9, 12, 15, 24	9	28	70-72
RM-XX12S	RL-XX12S (H)		1.8, 3.3, 5, 9, 12, 15, 24	12	21	70-72
RM-XX15S	RL-XX15S (H)		1.8, 3.3, 5, 9, 12, 15, 24	15	17	70-76
RM-XX24S	RL-XX24S (H)		1.8, 3.3, 5, 9, 12, 15, 24	24	10	70-80

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

Input Voltage	±10%	
Input Filter	Capacitor Type	
Output Voltage Accuracy	±5%	
Line Voltage Regulation	1,2%/1% V Input	
Load Voltage Regulation (10% to 100% full load)	1.8V, 3.3V output types 5V output types other output types	20% max. 15% max. 10% max.
Ripple and Noise (20MHz limited)	50mVp-p max.	
Efficiency at Full Load	65% min.	
Isolation Voltage	1.000VDC min. (Typ RL available with 2.000VDC, Suffix 'H')	
Isolation Resistance (Viso = 500VDC)	10 GΩ min.	
Short Circuit Protection	1 Second	
Switching Frequency at Full Load	50kHz min. / 90kHz typ.	
Isolation Capacitance	25pF min./82pF max.	
Operating Temperature	-40°C to +85°C (see Graph)	
Storage Temperature	-55°C to +125°C	
Package Weight	RM types RL types	1.4g 1.8g



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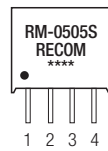
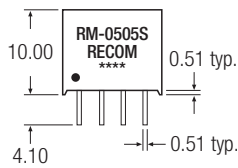
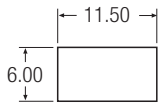
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## Package Style and Pinning (mm)

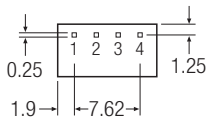
### 4 PIN SIP Package

3rd angle projection 

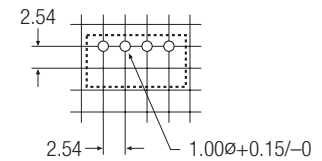


### RM Pin Connections

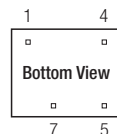
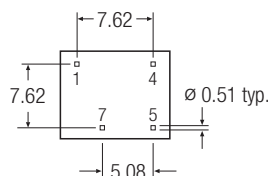
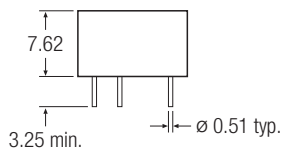
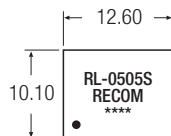
Pin #	Single
1	-Vin
2	+Vin
3	-Vout
4	+Vout



### Recommended Footprint Details



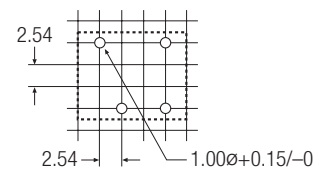
### 8 PIN DIP Package



### RL Pin Connections

Pin #	Single
1	-Vin
4	+Vin
5	+Vout
7	-Vout

### Recommended Footprint Details



XX.X ± 0.5 mm  
XX.XX ± 0.25 mm