

## Features

### Regulated Converters

- DIP24 Miniature Package
- 2:1 Wide Range Voltage Input
- 1kVDC Isolation
- UL94V-0 Package Material
- Continuous Short Circuit Protection
- Less than 7mm Height
- Cost Effective
- Short Lead Time
- No External Capacitor needed
- Efficiency to 88%

## ECONOLINE

DC/DC-Converter

# RW Series

**3 Watt  
DIP24/SMD low  
Profile package  
Single Output**



**RECOM**

### Selection Guide

Part Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)
DIP24 Miniature	(VDC)	(VDC)	(mA)
RW-053.3S	4.5 – 9	3.3	650
RW-0505S	4.5 – 9	5	600
RW-0509S	4.5 – 9	9	333
RW-0512S	4.5 – 9	12	250
RW-0515S	4.5 – 9	15	200
RW-123.3S	9 – 18	3.3	650
RW-1205S	9 – 18	5	600
RW-1209S	9 – 18	9	333
RW-1212S	9 – 18	12	250
RW-1215S	9 – 18	15	200
RW-243.3S	18 – 36	3.3	650
RW-2405S	18 – 36	5	600
RW-2409S	18 – 36	9	333
RW-2412S	18 – 36	12	250
RW-2415S	18 – 36	15	200
RW-483.3S	36 – 72	3.3	650
RW-4805S	36 – 72	5	600
RW-4809S	36 – 72	9	333
RW-4812S	36 – 72	12	250
RW-4815S	36 – 72	15	200

### Description

The RW series with 2:1 input voltage ranges and max. height of 7,0 mm has been designed for the telecom - and industrial automation markets. They are particularly aimed at applications where pcb-space is at a premium, still requiring industrial standard pinning. Also an optional SMD pinning is available. The converters supply the full 3 Watts without additional heat-sinks over the temperature range -40°C to +80°C.

### Specifications (Core Operating Area)

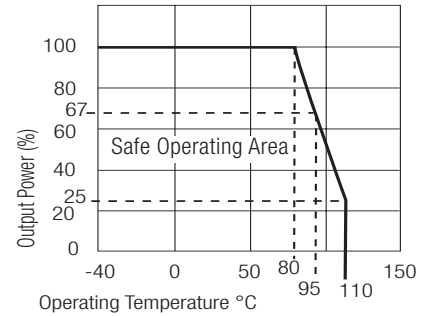
Input Voltage Range	2:1
Output Voltage Accuracy	±2% max.
Line Voltage Regulation	±0.2% typ.
Load Voltage Regulation (10% to 100% full load)	±0.5% max.
Output Ripple and Noise (20MHz limited)	70mVp-p max.
Operating Frequency	85kHz min. / 100kHz typ.

continued on next page

**Specifications (Core Operating Area)**

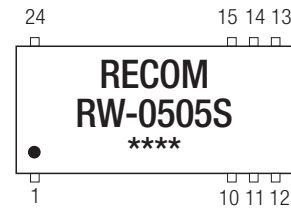
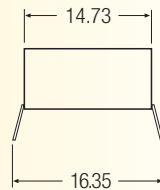
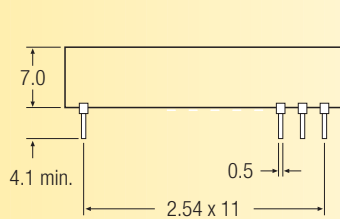
Efficiency at Full Load		65% min.
Isolation Voltage	(tested for 1 second)	1.000VDC min.
Rated Working Voltage	(long term isolation)	see Application Notes
Isolation Capacitance		40pF min. / 60pF max.
Isolation Resistance		1 GΩ min.
Short Circuit Protection		Continuous
Operating Temperature Range (free air convection)		-40°C to +80°C (see Graph)
Storage Temperature Range		-55°C to +125°C
Relative Humidity	MSL Level 1	95% RH
Package Weight		7g
MTBF (+25°C)	} Detailed Information see Application Notes chapter "MTBF"	using MIL-HDBK 217F 1034 x 10 <sup>3</sup> hours
(+80°C)		using MIL-HDBK 217F 186 x 10 <sup>3</sup> hours

**Derating-Graph**  
(Ambient Temperature)

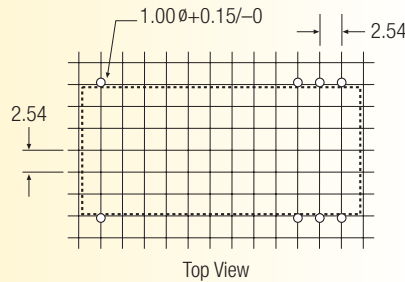
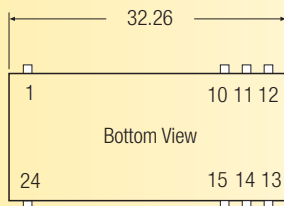


**Package Style and Pinning (mm)**

**24 PIN DIP Miniature Package Style**



**Recommended Footprint Details**

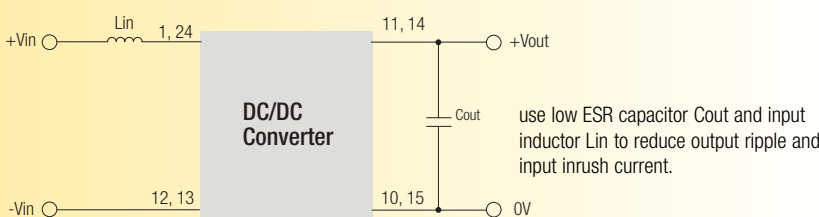


**Pin Connections**

Pin #	Single
1 & 24	+Vin
10 & 15	-Vout
11 & 14	+Vout
12 & 13	-Vin

NC = No Connection  
XX.X ± 0.5 mm  
XX.XX ± 0.25 mm

<b>Lin</b>	RW- types	4.7uH ~ 100uH
<b>Cout</b>	RW- types	22uF ~ 100uF/25V



**RW-types**

