



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Features

Regulated Converters

- DIP24 Low Profile Miniature Package
- 1kVDC Isolation
- Feedback Regulated Output
- 2:1 Wide Range Voltage Input
- Continuous Short Circuit Protection
- Less than 7mm Height
- SMD Pinning Option
- Efficiency to 87%

Description

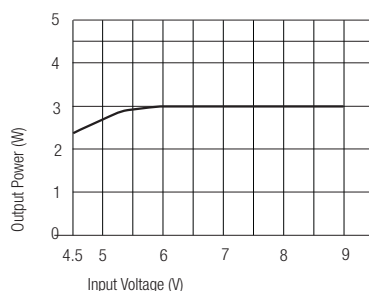
The RW-S series with 2:1 input voltage ranges and max. height of 7,0 mm has been designed for the industrial automation markets. They are aimed at applications where pcb-space is at a premium so SMD pinning is also available. The converters supply the full 3 watts without additional heat-sinks over the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

Selection Guide

Part Number DIP24 Miniature	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)	Max Capacitive Load ⁽¹⁾
RW-053.3S	4.5 – 9	3.3	650	68	4700µF
RW-0505S	4.5 – 9	5	600	69	4700µF
RW-0509S	4.5 – 9	9	333	70	3300µF
RW-0512S	4.5 – 9	12	250	72	2200µF
RW-0515S	4.5 – 9	15	200	73	2200µF
RW-123.3S	9 – 18	3.3	650	70	4700µF
RW-1205S	9 – 18	5	600	73	4700µF
RW-1209S	9 – 18	9	333	78	3300µF
RW-1212S	9 – 18	12	250	79	2200µF
RW-1215S	9 – 18	15	200	79	2200µF
RW-243.3S	18 – 36	3.3	650	75	4700µF
RW-2405S	18 – 36	5	600	78	4700µF
RW-2409S	18 – 36	9	333	82	3300µF
RW-2412S	18 – 36	12	250	84	2200µF
RW-2415S	18 – 36	15	200	85	2200µF
RW-483.3S	36 – 72	3.3	650	73	4700µF
RW-4805S	36 – 72	5	600	78	4700µF
RW-4809S	36 – 72	9	333	82	3300µF
RW-4812S	36 – 72	12	250	84	2200µF
RW-4815S	36 – 72	15	200	85	2200µF

* add suffix "/SMD" for SMD package, e.g. RW-2405S/SMD

RW-05xx types



ECONOLINE

DC/DC-Converter

with 3 year Warranty

RECOM

3 Watt

DIP24/SMD

Low Profile

Package

Single Output

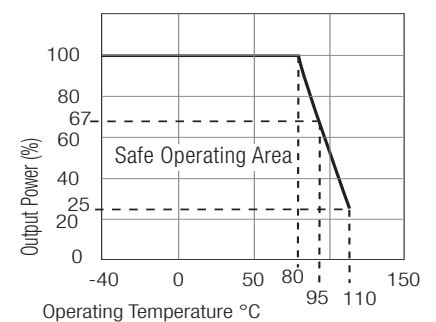


EN-60950-1 Certified

RW-S

Derating-Graph

(Ambient Temperature)



Refer to Application Notes

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.	
Minimum Load		10% ⁽²⁾	
Output Ripple and Noise (20MHz limited)		70mVp-p max.	
Operating Frequency		85kHz min. / 100kHz typ.	
Efficiency at Full Load		See Selection Guide	
No Load Power Consumption		250mW max.	
Isolation Voltage	(tested for 1 second) (rated for 1 minute**)	1000VDC 500VAC / 60Hz	
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		95% RH	
Package Weight	DIP24	7g	
	SMD	7.7g	
Packing Quantity		15 pcs per Tube	
MTBF (+25°C)	} Detailed Information see Application Notes chapter "MTBF"	using MIL-HDBK 217F	1034 x 10 ³ hours
(+80°C)		using MIL-HDBK 217F	186 x 10 ³ hours
Certifications			
EN General Safety	Report: SPCLVD1212007		EN60950-1:2006 + A11:2009+A1:2010+A12:2011
EN Medical Safety	Report: MDD1205098-3 + RM1205098-3	IEC/EN 60601-1 3rd Edition	Medical Report + ISO14971 Risk Assessment

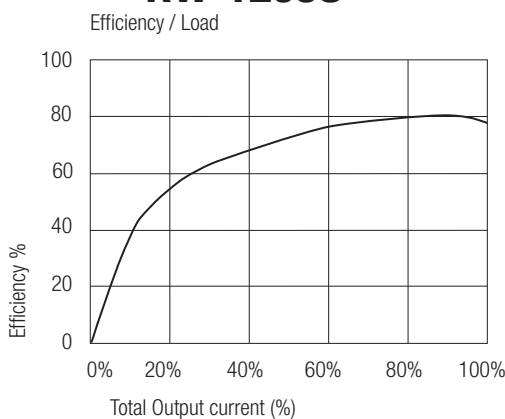
**Any data referred to in this datasheet are of indicative nature and based on our practical experience only. For further details, please refer to our Application Notes.

Notes

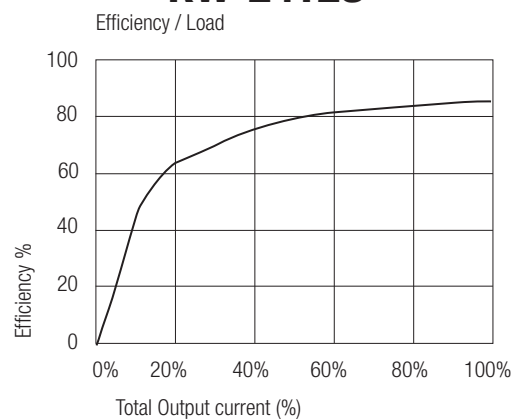
- Note 1: Maximum capacitive load is defined as the capacitive load that will allow start up in under 1 second without damage to the converter
- Note 2: The RW-S series requires a minimum of 10% load on the output to maintain specified regulation. Operating under no-load conditions will not damage these devices; however, they may not meet all listed specifications.

Typical Performance

RW-1205S

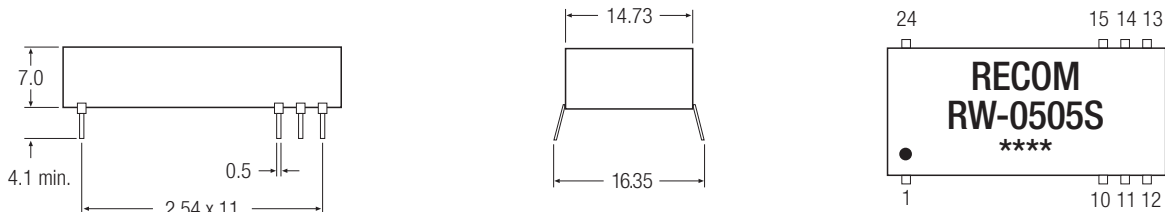


RW-2412S

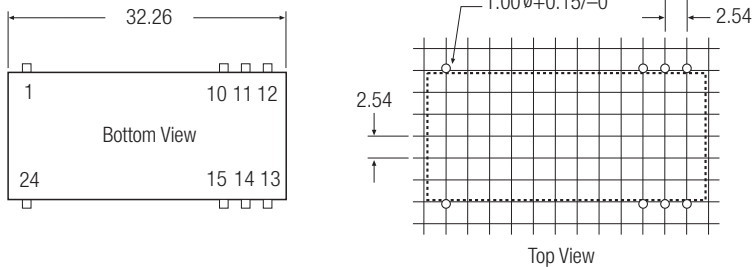


Package Style and Pinning (mm)

24 PIN DIP Miniature Package Style



Recommended Footprint Details

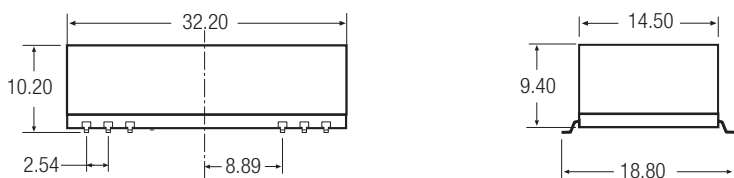


Pin Connections

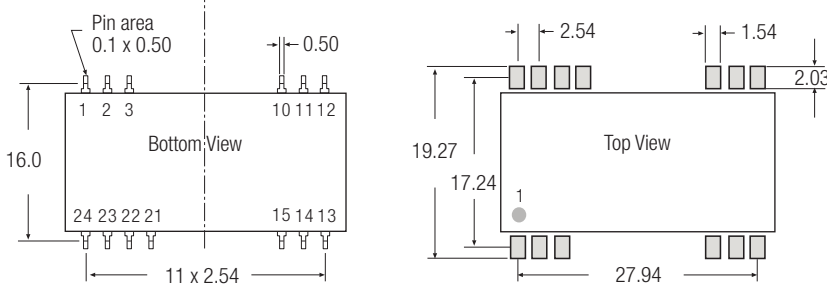
Pin #	Single
1 & 24	+Vin
10 & 15	-Vout
11 & 14	+Vout
12 & 13	-Vin

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

24 PIN SMD Miniature Package Style



Recommended Footprint Details



Pin Connections

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

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

RW-S

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