

## Features

## Regulated Converters

- 2:1 Wide Range Voltage Input
- 1kVDC, 2kVDC and 3kVDC Isolation
- UL94V-0 Package Material
- Continuous Short Circuit Protection
- Low Ripple and Noise
- DIP16 and SMD Versions Available
- Efficiency to 83%

**ECONOLINE**  
DC/DC-Converter

# RW2 Series

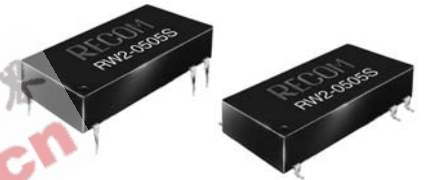
### Selection Guide

Part Number	Input Voltage Range (VDC)	Rated Output Voltage (VDC)	Output Current Full Load (mA)	Efficiency typ./nom Vin (%)	Capacitive Load max. (µF)
DIP16					
RW2-053.3S (H2/H3)	4.5 - 9	3.3	500	68	1000
RW2-0505S (H2/H3)	4.5 - 9	5	400	73	1000
RW2-0509S (H2/H3)	4.5 - 9	9	222	74	470
RW2-0512S (H2/H3)	4.5 - 9	12	166	75	220
RW2-0515S (H2/H3)	4.5 - 9	15	134	75	100
RW2-123.3S (H2/H3)	9 - 18	3.3	500	69	1000
RW2-1205S (H2/H3)	9 - 18	5	400	75	1000
RW2-1209S (H2/H3)	9 - 18	9	222	78	470
RW2-1212S (H2/H3)	9 - 18	12	166	80	220
RW2-1215S (H2/H3)	9 - 18	15	134	80	100
RW2-243.3S (H2/H3)	18 - 36	3.3	500	70	1000
RW2-2405S (H2/H3)	18 - 36	5	400	78	1000
RW2-2409S (H2/H3)	18 - 36	9	222	81	470
RW2-2412S (H2/H3)	18 - 36	12	166	83	220
RW2-2415S (H2/H3)	18 - 36	15	134	83	100
RW2-483.3S (H2/H3)	36 - 72	3.3	500	73	1000
RW2-4805S (H2/H3)	36 - 72	5	400	76	1000
RW2-4809S (H2/H3)	36 - 72	9	222	79	470
RW2-4812S (H2/H3)	36 - 72	12	166	81	220
RW2-4815S (H2/H3)	36 - 72	15	134	81	100
RW2-053.3D (H2/H3)	4.5 - 9	±3.3	±250	68	±470
RW2-0505D (H2/H3)	4.5 - 9	±5	±200	73	±470
RW2-0509D (H2/H3)	4.5 - 9	±9	±111	74	±220
RW2-0512D (H2/H3)	4.5 - 9	±12	±83	75	±100
RW2-0515D (H2/H3)	4.5 - 9	±15	±67	75	±47
RW2-123.3D (H2/H3)	9 - 18	±3.3	±250	69	±470
RW2-1205D (H2/H3)	9 - 18	±5	±200	75	±470
RW2-1209D (H2/H3)	9 - 18	±9	±111	78	±220
RW2-1212D (H2/H3)	9 - 18	±12	±83	80	±100
RW2-1215D (H2/H3)	9 - 18	±15	±67	80	±47
RW2-243.3D (H2/H3)	18 - 36	±3.3	±250	70	±470
RW2-2405D (H2/H3)	18 - 36	±5	±200	78	±470
RW2-2409D (H2/H3)	18 - 36	±9	±111	81	±220
RW2-2412D (H2/H3)	18 - 36	±12	±83	83	±100
RW2-2415D (H2/H3)	18 - 36	±15	±67	83	±47
RW2-483.3D (H2/H3)	36 - 72	±3.3	±250	73	±470
RW2-4805D (H2/H3)	36 - 72	±5	±200	78	±470
RW2-4809D (H2/H3)	36 - 72	±9	±111	81	±220
RW2-4812D (H2/H3)	36 - 72	±12	±83	83	±100
RW2-4815D (H2/H3)	36 - 72	±15	±67	83	±47

Standard Isolation is 1kVDC. Add suffix **/H2** for 2kVDC Isolation, **/H3** for 3kVDC Isolation.

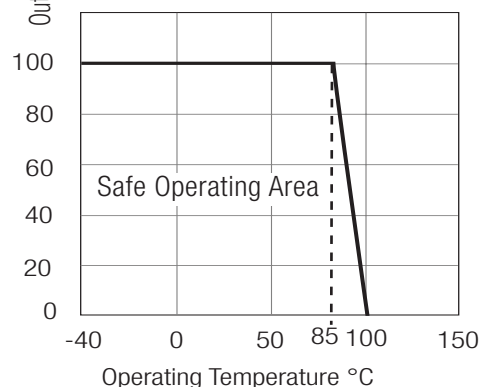
Add suffix **"/SMD"** for SMD Package e.g. RW2-0505S/H3/SMD

## 2 Watt DIP16 & SMD Single & Dual Output



**RECOM**

### Derating-Graph (Ambient Temperature)



**Description**

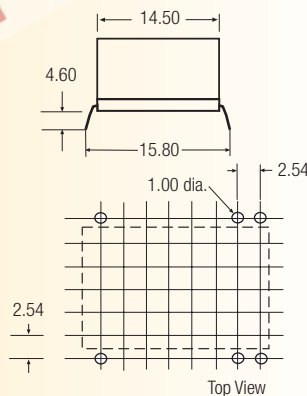
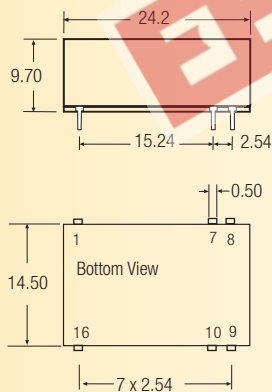
High power-density, 2:1 input voltage range and a wide temperature range of -40°C to +85°C are just some of the characteristics of this versatile surface mount converter, ideal for highly sophisticated industrial designs where space is at a premium.

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

Input Voltage Range		2:1
Output Accuracy		±2% typ.
Line Voltage Regulation		±0.5% max.
Load Voltage Regulation	(20% to 100% full load)	±0.5% typ.
Output Ripple and Noise (20MHz limited)		50mVp-p max.
Switching Frequency (at full Load)		100kHz min.
Efficiency at Full Load		70% min. / 80% typ.
Isolation Voltage	(tested for 1 second)	1000VDC min. H2 2000VDC min. H3 3000VDC min.
Rated Working Voltage	(long term isolation)	see Application Notes
Isolation Capacitance		30pF max.
Isolation Resistance		1GΩ min.
Short Circuit Protection		Continuous
Operating Temperature Range		-40°C to +85°C
Storage Temperature Range		-55°C to +125°C
Relative Humidity		95% RH
Package Weight		6.4g
MTBF (+25°C)	} Detailed Information see Application Notes chapter "MTBF"	using MIL-HDBK 217F 4366 x10 <sup>3</sup> hours
(+85°C)		using MIL-HDBK 217F 658 x10 <sup>3</sup> hours

**Package Style and Pinning (mm)**

**16 Pin DIP Package**



**Pin Connections**

Pin #	Single	Dual
1	-Vin	-Vin
7	NC	NC
8	NC	Com
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin

NC = No Connection  
XX.X ± 0.5 mm  
XX.XX ± 0.35 mm

**Recommended Footprint Details**

**16 Pin SMD Package**

