

**Model Numbering**



**Notes:**

Note3: „/H2“ = 2kVDC isolation; „/H3“ = 3kVDC isolation; without suffix standard 1kVDC isolation

Note4: add suffix „/SMD“ for SMD package or „/B“ for Mini DIP16 THT package;  
without suffix = standard DIP16 package (refer to “DIP16”)

**Ordering Examples:**

RW2-2405S/B:	18-36Vin	5Vout	Single	1kVDC Isolation	Mini DIP16 Package
RW2-1212D/H2:	9-18Vin	±12Vout	Dual	2kVDC Isolation	DIP16 Package
RW2-0515D/H3/SMD:	4.5-9Vin	±15Vout	Dual	3kVDC Isolation	SMD Package
RW2-4812S/H2/B	36-72Vin	12Vout	Single	2kVDC Isolation	Mini DIP16 Package

**Specifications** (measured @ Ta= 25°C, nom. Vin, full load and after warm-up unless otherwise stated)

BASIC CHARACTERISTICS				
Parameter	Condition	Min.	Typ.	Max.
Input Voltage Range	5VDC	4.5VDC		9VDC
	nom. Vin= 12VDC	9VDC		18VDC
	24VDC	18VDC		36VDC
	48VDC	36VDC		72VDC
Minimum Load <sup>(5)</sup>		10%		
Internal Operating Frequency		100KHz		700kHz
Output Ripple and Noise	20MHz BW			50mVp-p
<b>Notes:</b> Note5: Operation below 10% load won't harm the converter, but specifications may not be met.				

REGULATIONS		
Parameter	Condition	Value
Output Accuracy		±2.0% typ.
Line Regulation		±0.5% max.
Load Regulation	20% to 100% load	0.5% typ.

PROTECTION			
Parameter	Type		Value
Short Circuit Protection (SCP)			continuous
Isolation Voltage <sup>(6)</sup>	standard without suffix	tested for 1 second rated for 1 minute	1kVDC 500VAC/60Hz
	/H2 version	tested for 1 second rated for 1 minute	2kVDC 1kVAC/60Hz
	/H3 version	tested for 1 second rated for 1 minute	3kVDC 1.5kVAC/60Hz
Isolation Resistance			1GΩ min
Isolation Capacitance			30pF max
Insulation Grade			functional
<b>Notes:</b>			
Note6: For repeat Hi-Pot testing, reduce the time and/or the test voltage			
Note7: Refer to local safety regulations if input over-current protection is also required. Recommended fuse: slow blow type			

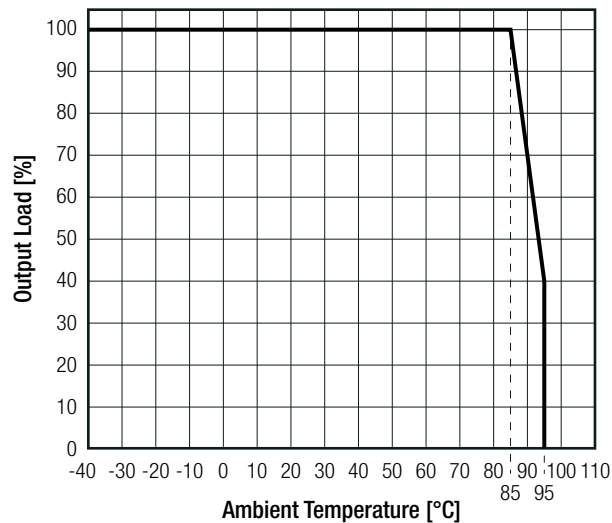
**Specifications** (measured @ Ta= 25°C, nom. Vin, full load and after warm-up unless otherwise stated)

**ENVIRONMENTAL**

Parameter	Condition		Value
Operating Temperature Range	full load @ free air convection (see graph)		-40°C to +85°C
Maximum Case Temperature			+100°C
Operating Altitude			2000m
Operating Humidity	non-condensing		95% RH max.
Pollution Degree			PD2
MTBF	according to MIL-HDBK-217F, G.B.	+25°C +85°C	4366 x 10 <sup>3</sup> hours 658 x 10 <sup>3</sup> hours

**Derating Graph**

(@ Chamber and free air convection)

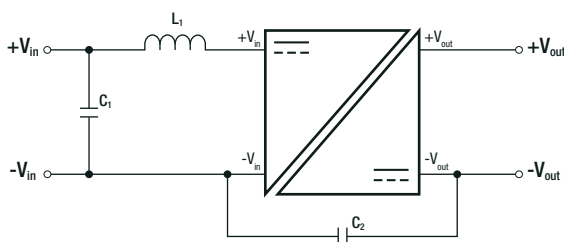


**SAFETY AND CERTIFICATIONS**

Certificate Type (Safety)	Report / File Number	Standard
Information Technology Equipment, General Requirements for Safety	SPCLVD1605077-10	IEC60950-1:2005, 2nd Edition + A2:2013 EN60950-1:2006 + A2:2013
Medical Electric Equipment, General Requirements for Safety and Essential Performance	WD-SE-R-180675-A0	IEC60601-1:2005, 3rd Edition + A1:2012 EN60601-1:2006 + A12:2014
EAC	RU-AT.AB49.B.09571	TP TC 004/2011
RoHS2+	TWNC00635328	RoHS-2011/65/EU

EMC Compliance	Condition	Standard / Criterion
Electromagnetic compatibility of multimedia equipment - Emission requirements <sup>(8)</sup>	with external filter (see filter suggestion below)	EN55032, Class A EN55032, Class B

**EMC Filtering Suggestions according to EN55032**



**Notes:**

Note8: Filter suggestions are valid for indicated part numbers only.  
For other part numbers, please contact RECOM tech support for advice.

**Component List Class A**

Models	C1	C2	L1
RW2-1212S/H2/SMD	10µF/100V MLCC	330pF	<a href="#">5.6µH choke RLS-567</a>
RW2-2405S/H2			

**Component List Class B**

Models	C1	C2	L1
RW2-1212S/H2/SMD	10µF/100V MLCC	330pF	<a href="#">22µH choke RLS-226</a>
RW2-2405S/H2			

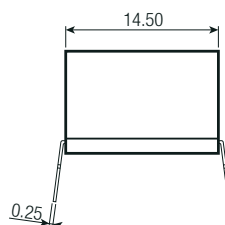
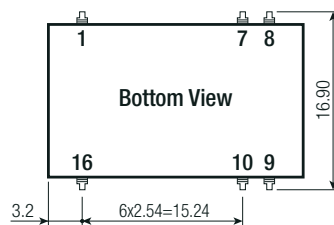
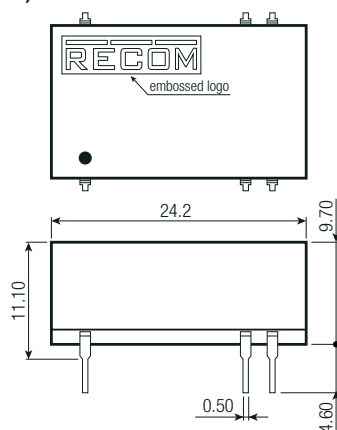
**Specifications** (measured @ Ta= 25°C, nom. Vin, full load and after warm-up unless otherwise stated)

### DIMENSION AND PHYSICAL CHARACTERISTICS

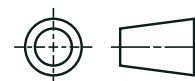
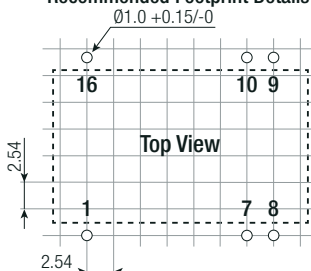
Parameter	Type	Value
Material	case	non-conductive black plastic, (UL94 V-0)
	potting	epoxy, (UL94 V-0)
	PCB	FR4, (UL94 V-0)
Dimension (LxWxH)	Mini DIP16	22.1 x 12.55 x 8.50mm
	DIP16	24.2 x 14.50 x 9.70mm
	SMD	24.2 x 14.50 x 10.20mm
Weight		6.4g typ.

#### Dimension Drawing (mm)

##### DIP16



#### Recommended Footprint Details

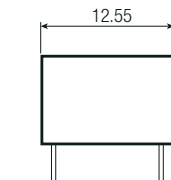
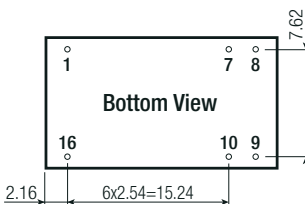
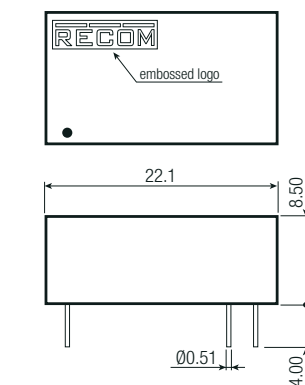


#### Pinning information

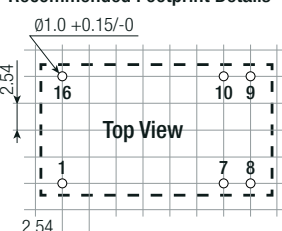
Pin #	Single	Dual
1	-Vin	-Vin
7	NC	NC
8	NC	Com
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin

Tolerance: xx.x= ±0.5mm  
xx.xx= ±0.35mm

##### Mini DIP16 (/B)



#### Recommended Footprint Details



#### Pinning information

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

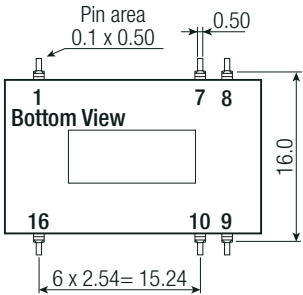
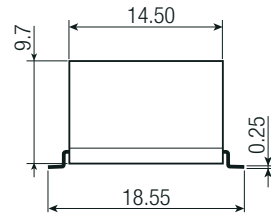
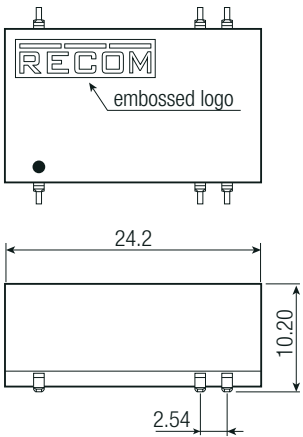
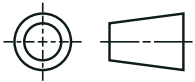
Tolerance: xx.x= ±0.5mm  
xx.xx= ±0.35mm

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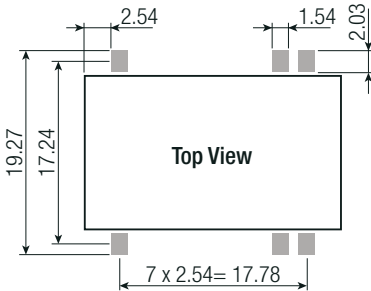
Specifications (measured @ Ta= 25°C, nom. Vin, full load and after warm-up unless otherwise stated)

Dimension Drawing SMD (mm)

SMD (/SMD)



Recommended Footprint Details



Pinning information

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

Tolerance: xx.x=±0.5mm  
xx.xx=±0.35mm

PACKAGING INFORMATION

Parameter	Type	Value
Packaging Dimension (LxWxH)	tube	530.0 x 21.0 x 18.0mm
Packaging Quantity	DIP16 and SMD Mini DIP16	20pcs 22pcs
Storage Temperature Range		-55°C to +125°C
Storage Humidity	non-condensing	95% RH max.

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