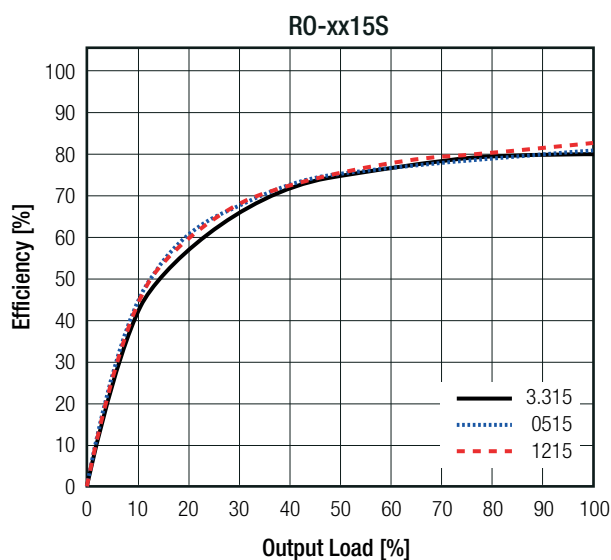
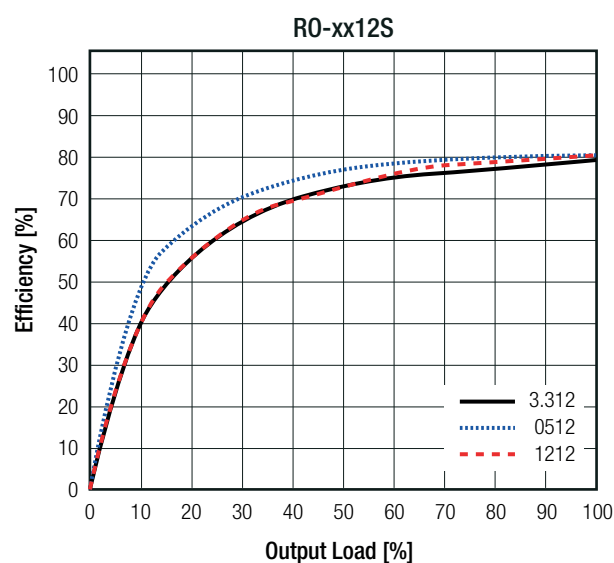
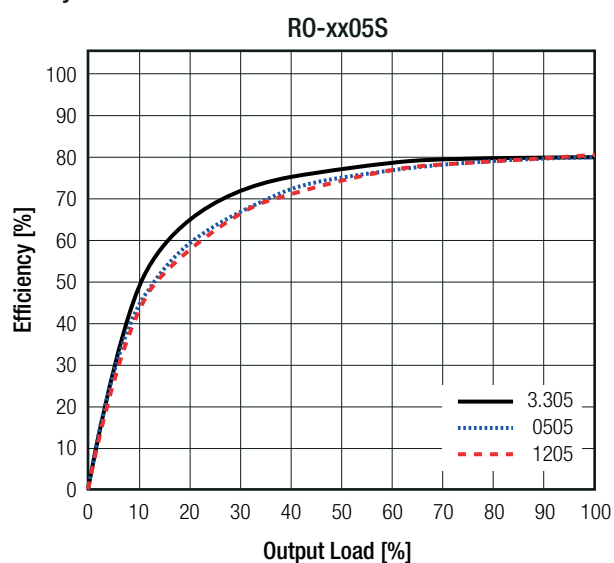


**Specifications** (measured @ Ta= 25°C, nom. Vin, full load unless otherwise stated)

### BASIC CHARACTERISTICS

Parameter	Condition	Min.	Typ.	Max.
Internal Input Filter		capacitor		
Input Voltage Range			±10%	
Minimum Load		0%		
Internal Operating Frequency		50kHz	100kHz	105kHz
Output Ripple and Noise	20MHz BW			100mVp-p

### Efficiency vs. Load



### REGULATIONS

Parameter	Condition	Value
Output Accuracy		-2.0% typ. / ±5.0% max.
Line Regulation	low line to high line	±1.2% of 1.0% Vin typ.

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**Specifications** (measured @  $T_a = 25^\circ\text{C}$ , nom.  $V_{in}$ , full load unless otherwise stated)

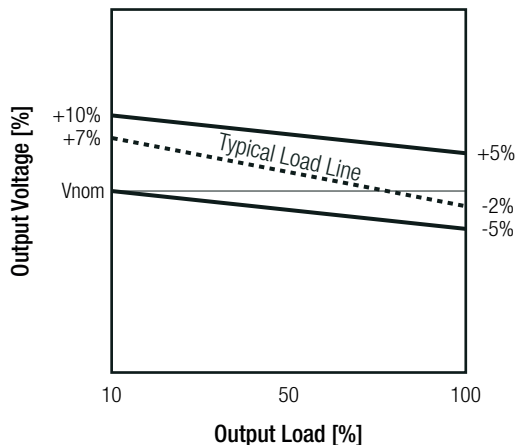
Parameter	Condition		Value
Load Regulation <sup>(5)</sup>	10% to 100% load	3.3Vout	20.0% max.
		5Vout	15.0% max.
		12, 15, 24Vout	10.0% max.

**Notes:**

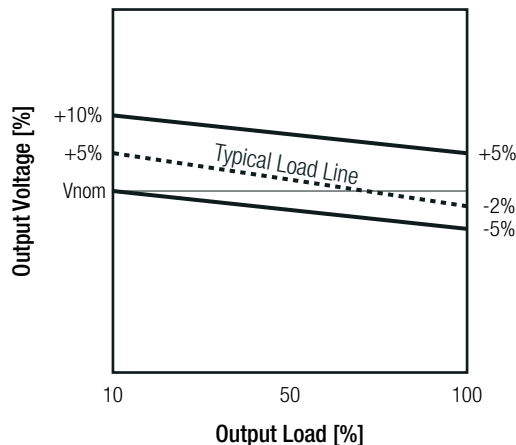
Note5: Operation below 10% load will not harm the converter, but specifications may not be met

**Tolerance Envelope**

**R0-xx3.3S and R0-xx05S**

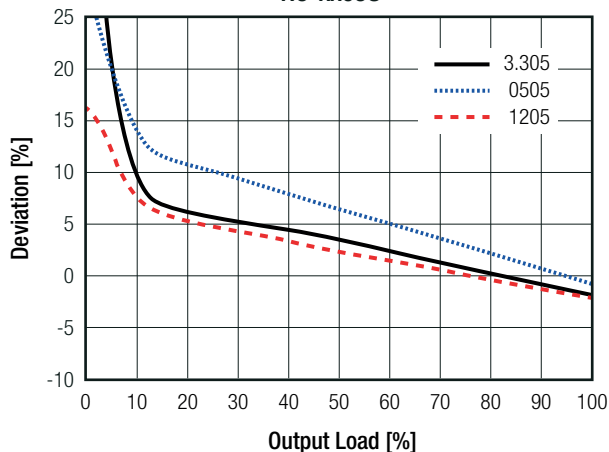


**R0-xx12S and R0-xx15S**

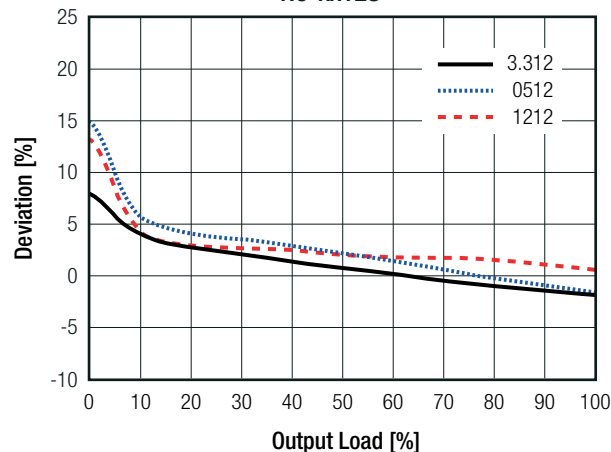


**Deviation vs. Load**

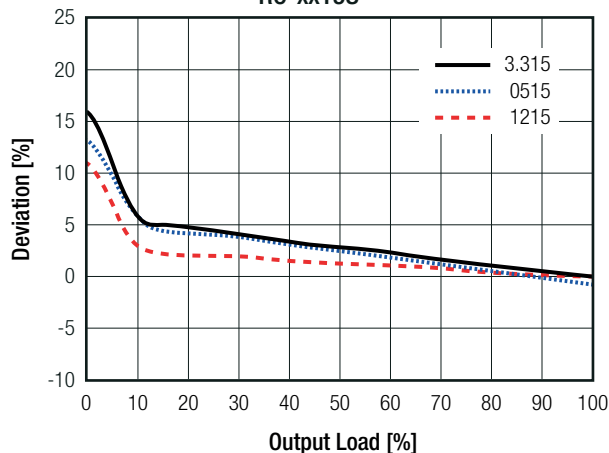
**R0-xx05S**



**R0-xx12S**



**R0-xx15S**



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

**PROTECTIONS**

Parameter	Type		Value
Short Circuit Protection (SCP)	without suffix with suffix "/P"		1 second continuous
Isolation Voltage <sup>(6)</sup>	I/P to O/P	without suffix	tested for 1 second rated for 1 minute
		with suffix "/H"	tested for 1 second rated for 1 minute
Isolation Resistance			1kVDC 500VAC/60Hz
Isolation Capacitance			2kVDC 1kVAC/60Hz
Insulation Grade			10GΩ min. 20pF min. / 75pF max.
			basic (IEC/EN60950-1) functional (IEC/EN60601-1)

**Notes:**

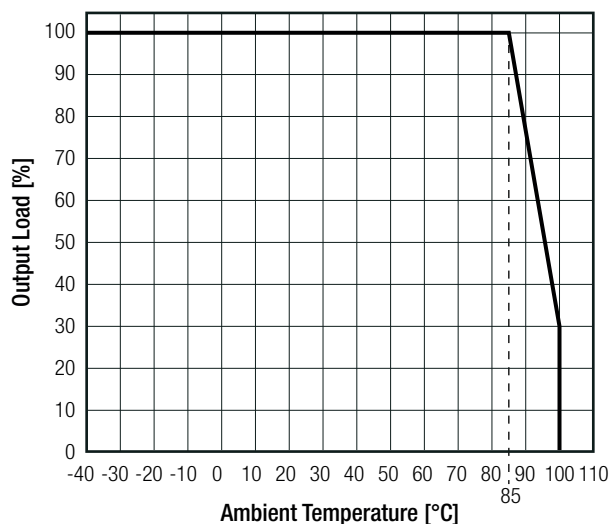
Note6: For repeat Hi-Pot testing, reduce the time and/or the test voltage

Note7: Refer to local safety regulations if input over-current protection is also required. Recommended fuse: slow blow type

**ENVIRONMENTAL**

Parameter	Condition		Value
Operating Temperature Range	full load (see graph)		-40°C to +85°C
Maximum Case Temperature			+110°C
Temperature Coefficient			±0.03%/K typ.
Thermal Impedance			67K/W
Operating Altitude			2000m (IEC/EN60950-1) 3000m (IEC/EN60601-1)
Operating Humidity	non-condensing		95% RH max.
Pollution Degree			PD2
MTBF	according to MIL-HDBK-217F, G.B.	+25°C +85°C	11800 x 10 <sup>3</sup> hours 4800 x 10 <sup>3</sup> hours

**Derating Graph**



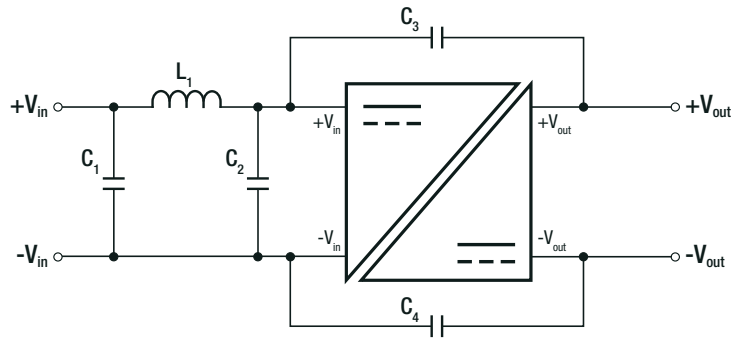
**Specifications** (measured @ Ta= 25°C, nom. Vin, full load unless otherwise stated)

**SAFETY AND CERTIFICATIONS**

Certificate Type (Safety)	Report / File Number	Standard
Information Technology Equipment, General Requirements for Safety	LVD1602031	IEC60950-1:2005, 2nd Edition + A2:2013 EN60950-1:2006 + A2:2013
Information Technology Equipment, General Requirements for Safety	E358085-A4-UL	UL60950-1, 2nd Edition:2007 CAN/CSA C22.2 No. 60950-1-03, 2nd Edition:2007
Information Technology Equipment, General Requirements for Safety (CB)	E322406-A4-CB-1	IEC60950-1:2005, 2nd Edition
Medical electrical equipment Part 1: General requirements for basic safety and essential performance	WD-SE-R-180677-A0	EN60601-1:2006 + A12:2014 IEC60601-1:2005 + A1:2012, 3rd Edition
EAC	RU-AT.49.09571	TP TC 004/2011
RoHS 2		RoHS-2011/65/EU + AM-2015/863

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

**EMC Filter Suggestion according to EN55032**



**Component List Class A**

MODEL	C1	L1	C2	C4 (safety)
RO-0505S	10µF 100V MLCC	N/A	1nF 50V MLCC	N/A
RO-1205S				2.2nF
RO-2405S				N/A

**Component List Class B**

MODEL	C1	L1	C3 (safety)	C4 (safety)
RO-0505S	10µF 100V MLCC	<a href="#">22µH choke</a> <a href="#">RLS-226</a>	1nF	2.2nF
RO-1205S				
RO-2405S				

**Notes:**

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

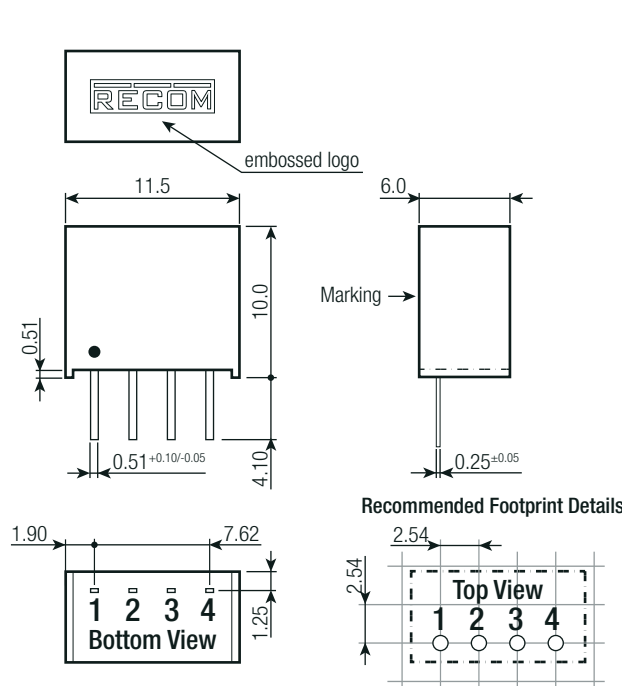
**DIMENSION AND PHYSICAL CHARACTERISTICS**

Parameter	Type	Value
Material	case potting PCB	non-conductive black plastic, (UL94V-0) epoxy, (UL94V-0) FR4, (UL94V-0)
Dimension (LxWxH)		11.5 x 6.0 x 10.0mm
Weight		1.4g typ.

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Specifications (measured @ Ta= 25°C, nom. Vin, full load unless otherwise stated)

Dimension Drawing (mm)



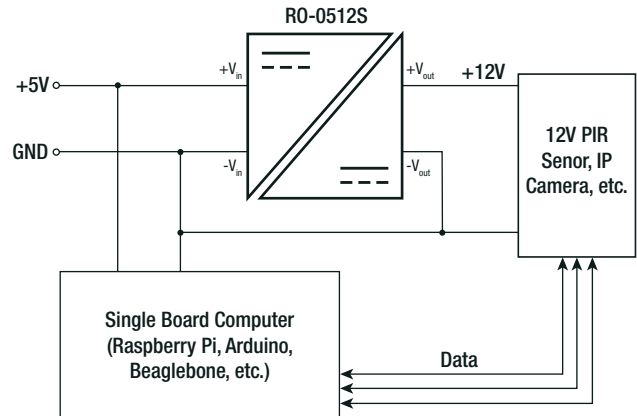
Pinning Information

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

Tolerance:  
xx.x= ±0.5mm  
xx.xx= ±0.25mm

INSTALLATION AND APPLICATION

Typical Application



PACKAGING INFORMATION

Parameter	Type	Value
Packaging Dimension (LxWxH)	tube	520.0 x 16.0 x 9.0mm
Packaging Quantity	tube	42pcs
Storage Temperature Range		-55°C to +125°C
Storage Humidity	non-condensing	95% RH max.

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