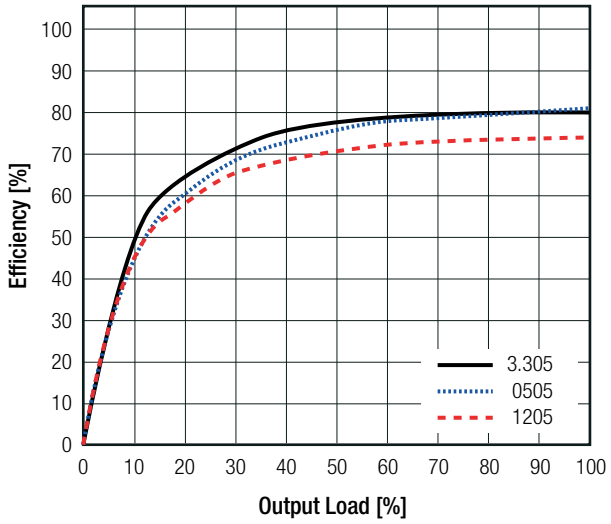
Specifications (measured @ Ta= 25°C, nom. Vin, full load unless otherwise stated)

BASIC CHARACTERISTICS

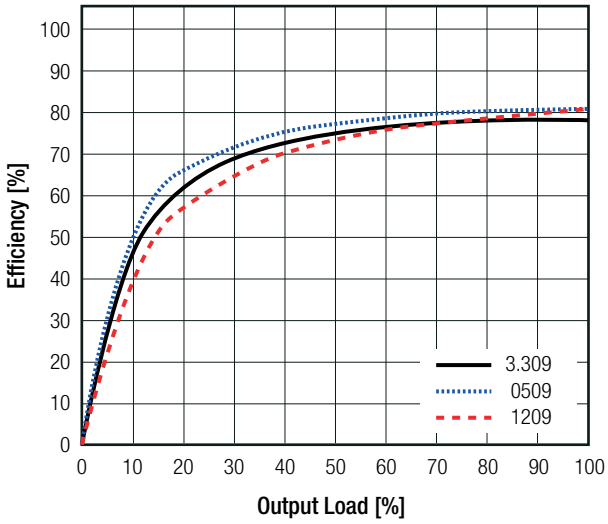
Parameter	Condition	Min.	Typ.	Max.
Internal Input Fuse				capacitors
Input Voltage Range			±10%	
Minimum Load		0%		
Start-up Time				250ms
Internal Operating Frequency		50kHz	100kHz	105kHz
Output Ripple and Noise	20MHz BW			100mVp-p

Efficiency vs. Load

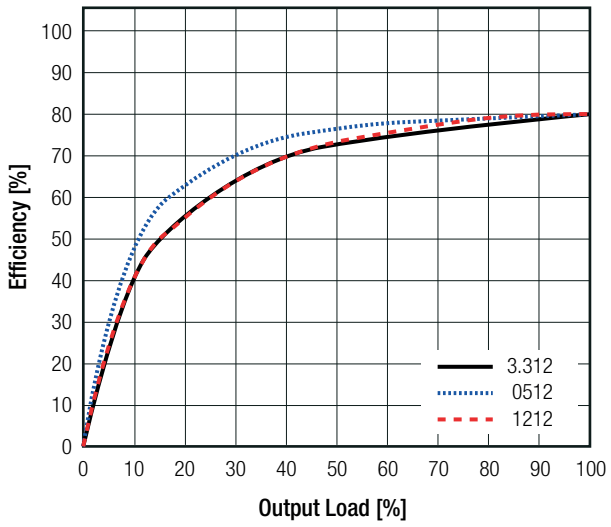
RK-xx05S



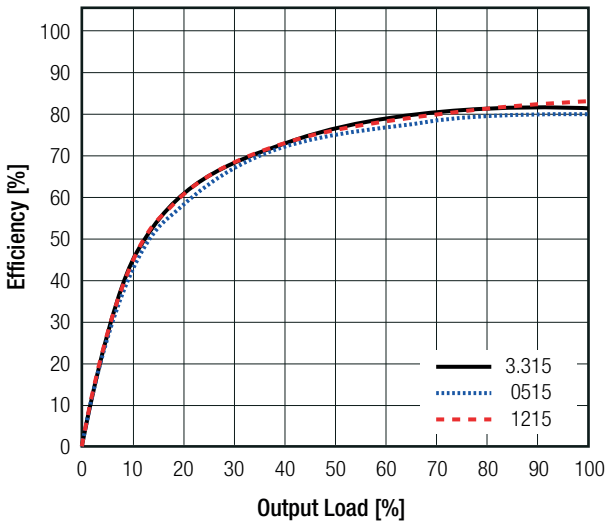
RK-xx09S



RK-xx12S



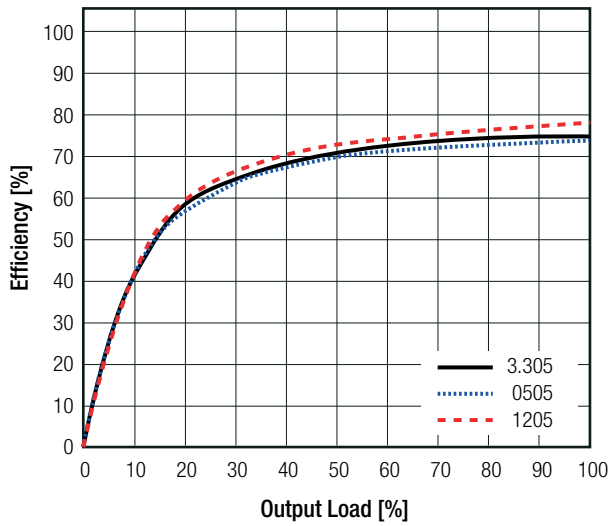
RK-xx15S



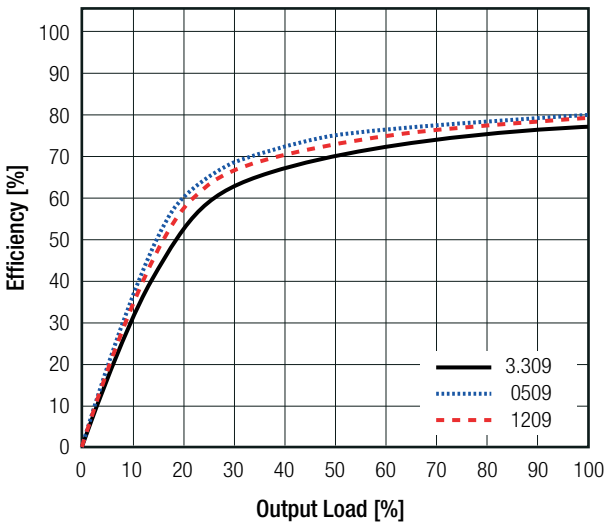
Specifications (measured @ Ta= 25°C, nom. Vin, full load unless otherwise stated)

Efficiency vs. Load

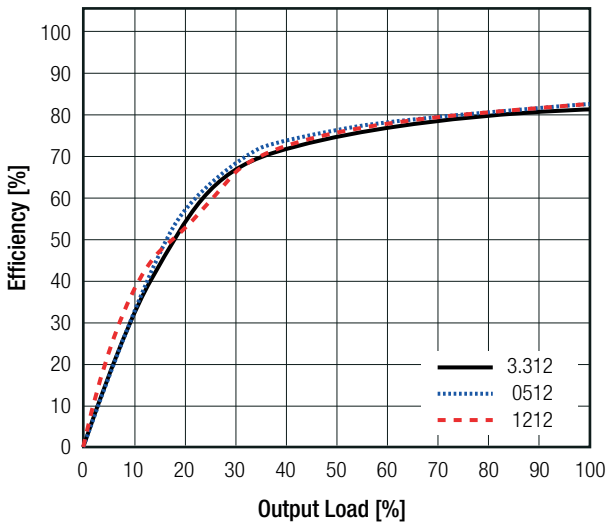
RH-xx05D



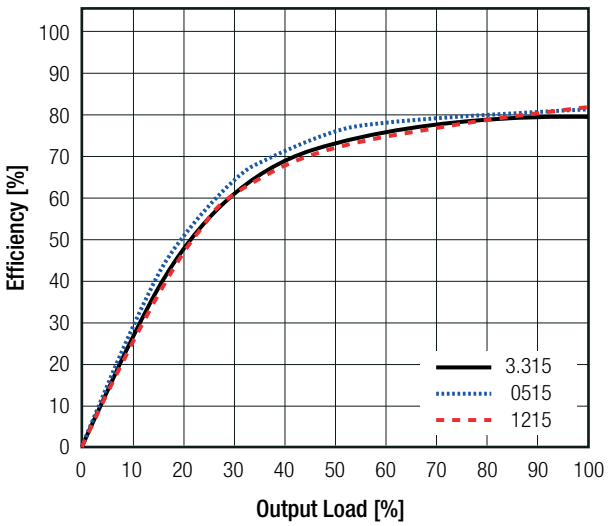
RH-xx09D



RH-xx12D



RH-xx15D



REGULATIONS			
Parameter	**Condition**		**Values**
Output Accuracy			±5.0% max.
Line Regulation	low line to high line		±1.2% of 1.0% Vin typ.
Load Regulation [5]	10% to 100% load	5Vout	15.0% max.
		9, 12, 15Vout and RH-xx1509D	10.0% max.

Notes:

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

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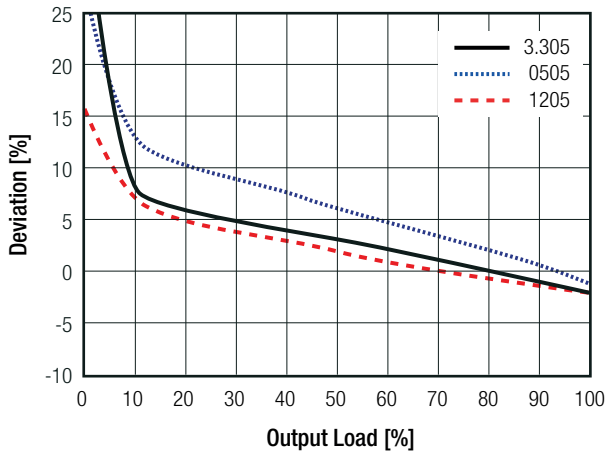
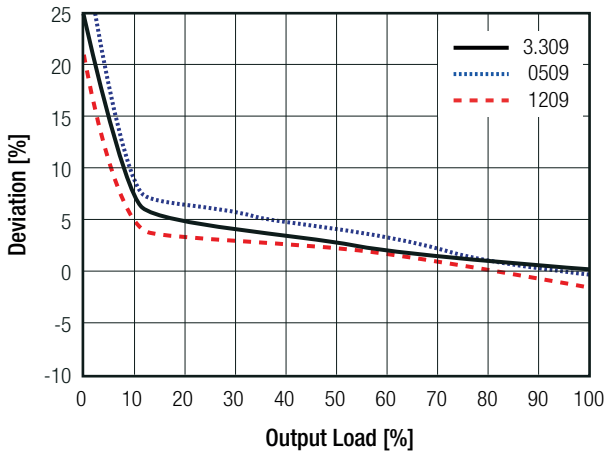
Specifications (measured @ Ta= 25°C, nom. Vin, full load unless otherwise stated)

Deviation vs. Load

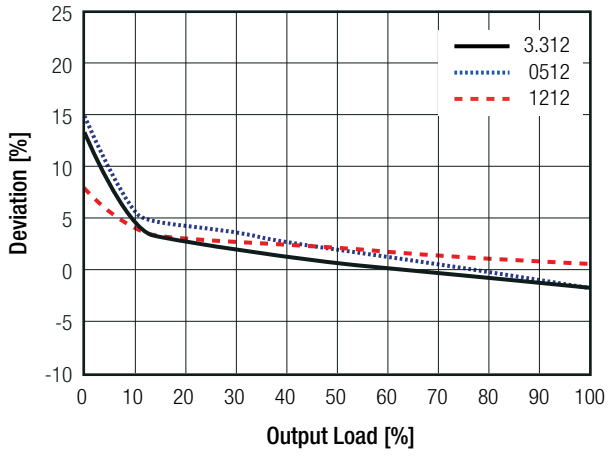
RK-xx05S



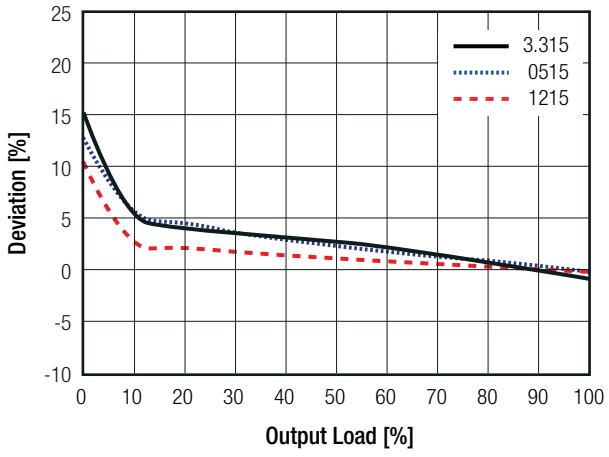
RK-xx09S



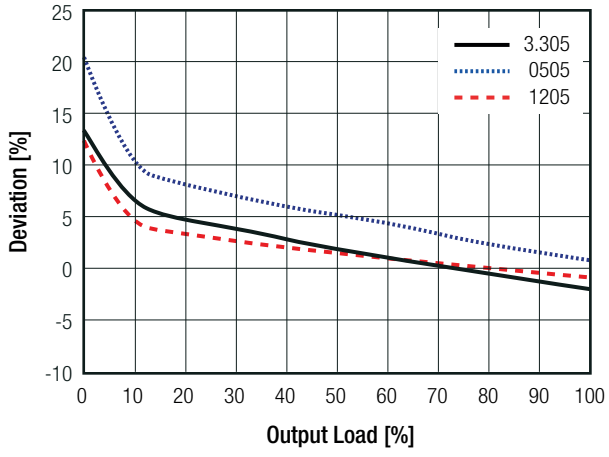
RK-xx12S



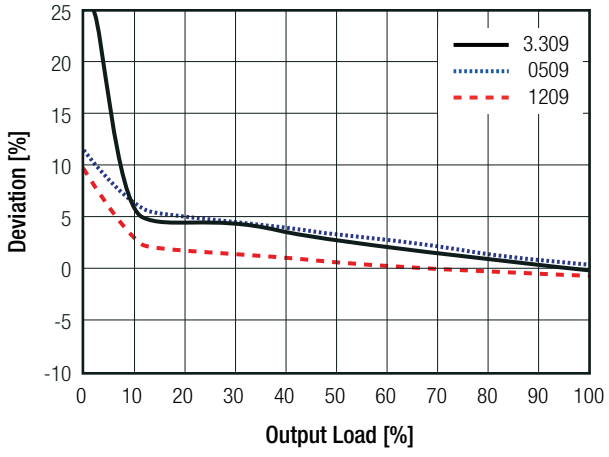
RK-xx15S



RH-xx05D



RH-xx09D



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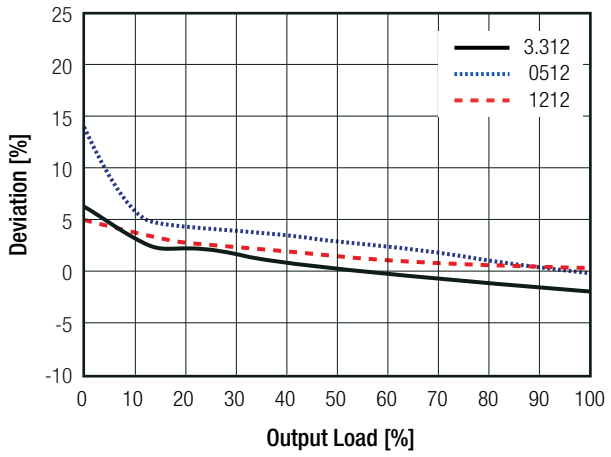
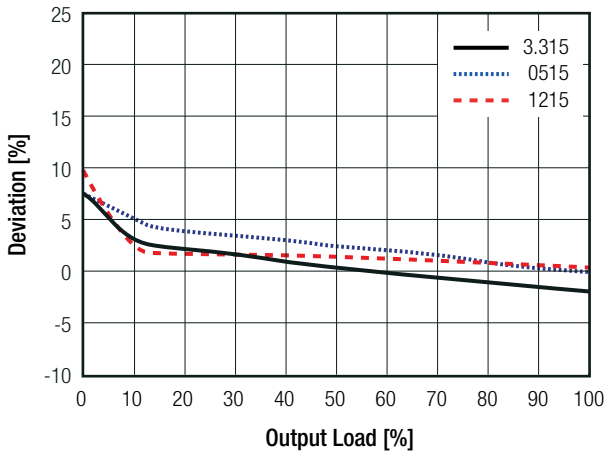
Specifications (measured @ Ta= 25°C, nom. Vin, full load unless otherwise stated)

Deviation vs. Load

RH-xx12D



RH-xx15D



PROTECTIONS

Parameter	Condition			Value
Short Circuit Protection (SCP)	without suffix with suffix "/P"			1 second continuous
Isolation Voltage (6)	I/P to O/P	without suffix	tested for 1 second rated for 1 minute	3kVDC 1.5kVAC
		with suffix "/H"	tested for 1 second rated for 1 minute	4kVDC 2kVAC
Isolation Capacitance	RK types RH types			20pF min. / 75pF max. 20pF min. / 65pF max.
Isolation Resistance				15GΩ min.
Insulation Grade				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 @ free air convection (see graph)			-40°C to +90°C
Operating Altitude				3000m
Operating Humidity	non-condensing			5% - 95% RH max.%
Pollution Degree				PD2
MTBF	according to MIL-HDBK-217F; G.B.	RK type	+25°C +85°C	992 x 10^3 hours 145 x 10^3 hours
		RH type	+25°C +85°C	1012 x 10^3 hours 151 x 10^3 hours

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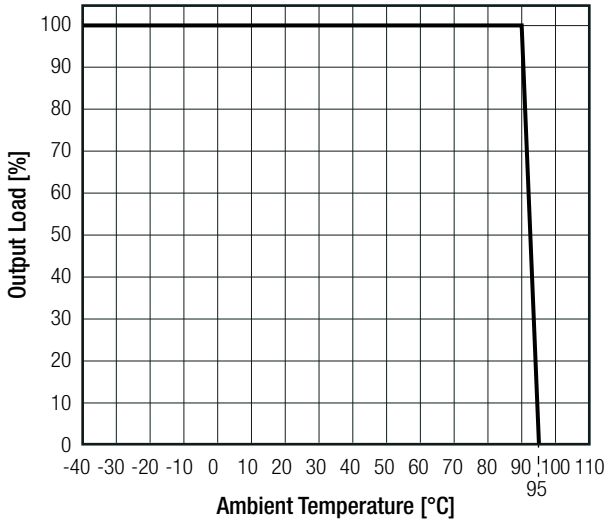
Specifications (measured @ Ta= 25°C, nom. Vin, full load unless otherwise stated)

Derating Graph
(@ free air convection)



SAFETY AND CERTIFICATIONS

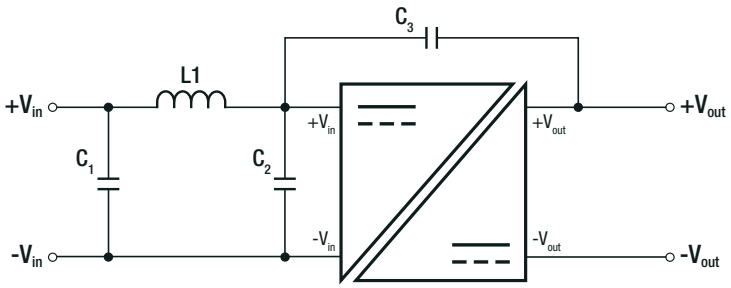
Certificate Type (Safety)	Report / File Number	Standard
Information Technology Equipment, General Requirements for Safety	E358085-A4-UL	UL60950-1, 2nd Edition:2007 CAN/CSA C22.2 No. 60950-1-03, 2nd Edition:2007
Information Technology Equipment, General Requirements for Safety	SPCLVD1602031	IEC60950-1:2005, 2nd Edition + A2:2013 EN60950-1:2006 + A2:2013
Medical electrical equipment Part 1: General requirements for basic safety and essential performance	WD-SE-R-180676-A0 (8)	IEC60601-1:2005 + A1:2012, 3rd Edition EN60601-1:2006 + A1:2013 + A12:2014
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 B EN55032, Class A

Notes:

Note8: excluded +15/-9 version

EMC Filter Suggestion according to EN55032
Single Output



Component List Class A

MODEL	C1	L1	C2	C3
RK-0505S	10µF 100V MLCC	N/A	N/A	N/A
RK-0515S		22µH choke RLS-226		
RK-2405S		12µH choke RLS-126		

Component List Class B

MODEL	C1	L1	C2	C3
RK-0505S	10µF 100V MLCC	12µH choke RLS-126	4.7µF 50V MLCC	N/A
RK-0515S				2.2nF
RK-2405S				N/A

Notes:

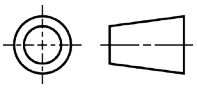
Note9: Filter suggestions are valid for indicated part numbers only. For other part numbers, please contact RECOM tech support for advice

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

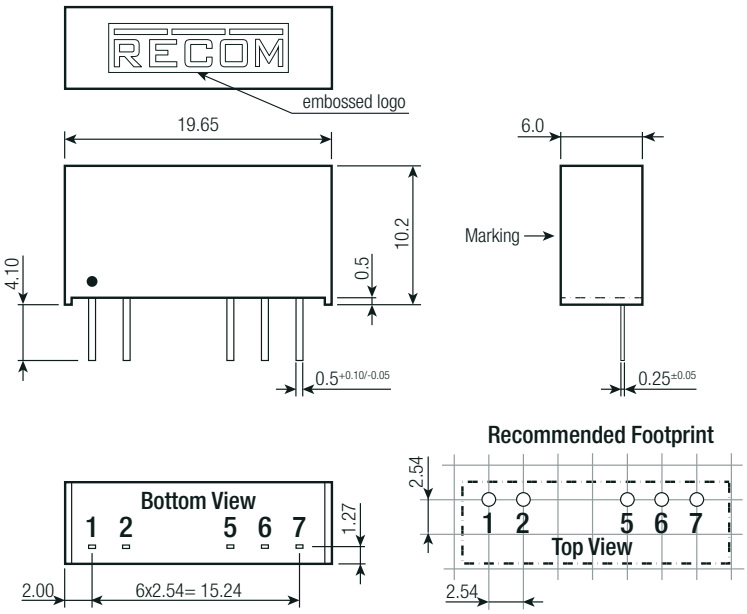
DIMENSION and PHYSICAL CHARACTERISTICS

Parameter	Type	Value
Material	case potting	non-conductive black plastic, (UL94 V-0) epoxy, (UL94 V-0)
Dimension (LxWxH)	standard with suffix "/H"	19.65 x 6.0 x 10.2mm 19.65 x 7.05 x 10.2mm
Weight	standard with suffix "/H"	2.6g typ. 2.8g typ.

Dimension Drawing (mm)



Standard Version

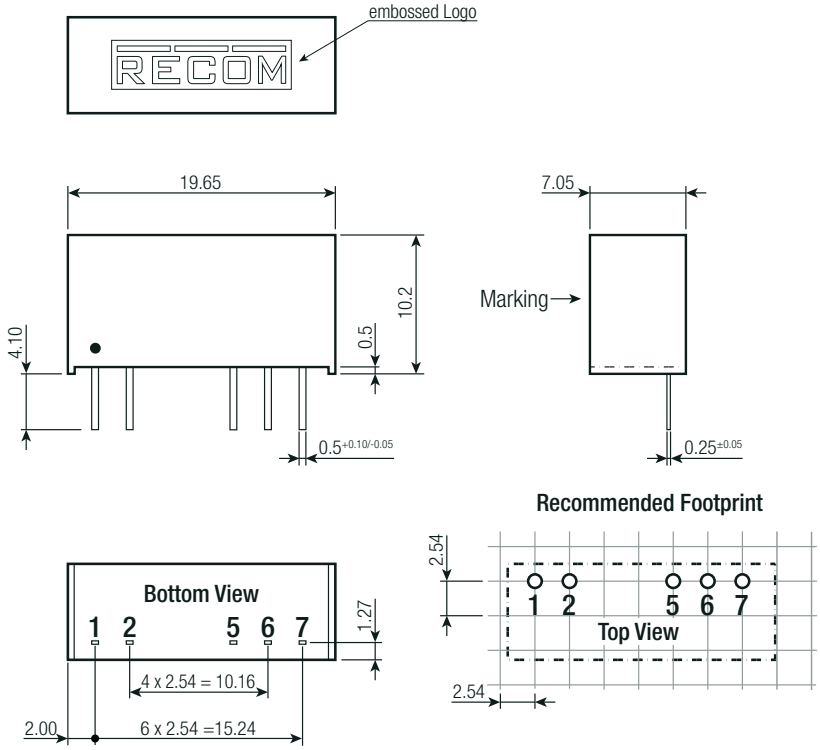


Pinning Information

Pin #	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
5	-Vout	-Vout
6	no pin	Com
7	+Vout	+Vout

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

„H" - Version



Pinning Information

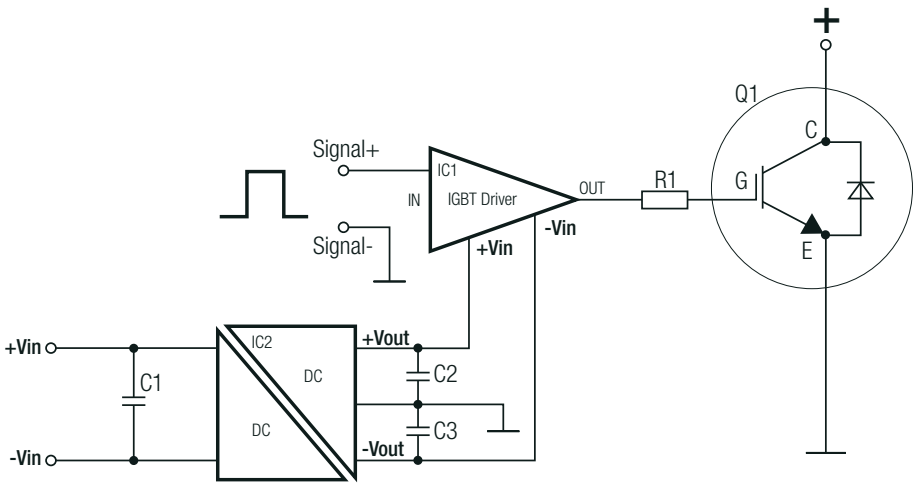
Pin #	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
5	-Vout	-Vout
6	no pin	Com
7	+Vout	+Vout

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

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

INSTALLATION AND APPLICATION

IGBT Application Circuit



PACKAGING INFORMATION

Parameter	Type	Value
Packaging Dimension (LxWxH)	tube	520.0 x 16.0 x 9.0mm
Packaging Quantity	tube	25pcs
Storage Temperature Range		-55°C to +125°C
Storage Humidity	non-condensing	95% RH max.