RS2/RD2-E10/T10

- 7 Pin SIL/ 14Pin DIL Package
- 1000VDC Isolation
- Up to 3000VDC Isolation
- Low Ripple and Noise
- Efficiency up to 80%
- Operating Temperature Range: -40° ~ +85°C
- Non Conductive Black Plastic Case

RoHS

OUTPUT SPECIFICATION	
Voltage accuracy:	±3%
Line regulation:	per 1%Vin Change: ±1.2%
LOAD REGULATION:	from 20% to 100%: Load ±10%
	Output 3.3V Model: ±20%
Ripple noise (20Mhz bandwidth):	75mV pk-pk
Temperature coefficient:	±0.02% °C
Capacitor load:	See table

INPUT SPECIFICATIONS	
Voltage Range:	±10%
Max. Input Current:	See table
No-Load/Full-Load Input Current:	See table
Input Filter:	Capacitors
Input Reflected Ripple Current :	20mA pk-pk

GENERAL SPECIFICATIONS	
Efficiency:	See table
I/O Isolation Voltage (60sec):	1000 ~ 3000VDC
I/O Isolation Capacitance:	60pF typ.
I/O Isolation Resistance:	1000M Ohm
Switching Frequency:	Variable 80kHz
Humidity:	95% rel H
Reliability Calculated MTBF : (MIL-HDBK-217 f)	>1.121MHrs
Safety Standard: (designed to meet):	IEC 60950-1

ENVIRONMENTAL SPECIFICATION	
Operating Temperature range:	-40°C ~+85°C (see Derating Curve)
Maximum Case Temperature:	100°C
Storage Temperature :	-40°C ~+125°C
Cooling :	Nature Convection

PHYSICAL SPECIFICATIONS:	
Case Material:	Non-conductive Black Plastic
	(UL94V-0 rated)
PIN Material SIP Case:	Ø 0.5mm Alloy42 Solder-coated
Potting Material:	Epoxy (UL94V-0 rated)
Weight Case- Sip:	2.3g
Weight Case-DIP:	2.6g
Dimmension SIP:	0.76 x 0.24 x 0.39“
Dimmension DIP:	0.80 x 0.40 x 0.27“

ABSOLUTE MAXIMUM RATINGS (1)	
Input Surge Voltage (100ms)/	
5 V Models:	7VDC max
12V Models:	15VDC max
24V Models:	28VDC max
48V Models:	54VDC max
Soldering Temperature (2):	260°C max.

1) These are stress ratings. Exposure of devices to any of these conditions may adversely affect long-term reliability.
2) (1.5mm from case 10sec Max.)
3) All specifications typical at TA= 25°C, nominal input voltage and full load unless otherwise specified.
4) The information and specification contained in this data sheet are believed to be correct at time of publication. However RSG accepts no responsibility for consequences arising from printing errors or inaccuracies. Specifications are subject to change without notice.

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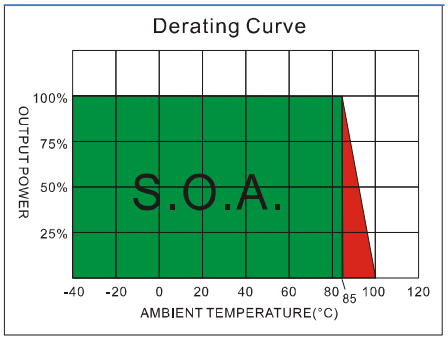
NUMBER STRUCTURE

RD2 - XX XX X XX A X

- **Name/Package**: RS2=SIL7, RD2=DIL14
- **Input**: 05=5.0V, 12=12V, 24=24V
- **Output**: 03=3.3V, 05=5.0V, 07=7.2V, 09=9.0V, 12=12V, 15=15V, 18=18V, 24=24V
- **Type**: E=Dual separ., T=Dual Split
- **Power (W)**: 20=2.00
- **Code**: internal
- **Isolation (kVDC)**: 1= 1.0, 3= 3.0



MODEL SELECTION GUIDE

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current No-Load (mA)	INPUT Current Full Load (mA)	OUTPUT Voltage(Vdc) Output1 Output2	OUTPUT Current Full load(mA) Output1 Output2	EFFICIENCY @FL(%)	Capacitor Load(uF)
RS2/RD2-0503T10AX	5	25	259	5 , 3.3	100 , 152	77	100
RS2/RD2-0507T10AX	5	25	266	5 , 7.2	100 , 69	75	100
RS2/RD2-0509T10AX	5	25	259	5 , 9	100 , 56	77	100
RS2/RD2-0512T10AX	5	25	259	5 , 12	100 , 42	77	100
RS2/RD2-0515T10AX	5	25	256	5 , 15	100 , 33	78	100
RS2/RD2-1203T10AX	12	15	106	5 , 3.3	100 , 152	78	100
RS2/RD2-1207T10AX	12	15	111	5 , 7.2	100 , 69	75	100
RS2/RD2-1209T10AX	12	15	108	5 , 9	100 , 56	77	100
RS2/RD2-1212T10AX	12	15	92	5 , 12	100 , 42	80	100
RS2/RD2-1215T10AX	12	15	106	5 , 15	100 , 33	78	100
RS2/RD2-2403T10AX	24	8	55	5 , 3.3	100 , 152	75	100
RS2/RD2-2407T10AX	24	8	55	5 , 7.2	100 , 69	75	100
RS2/RD2-2409T10AX	24	8	54	5 , 9	100 , 56	77	100
RS2/RD2-2412T10AX	24	8	53	5 , 12	100 , 42	78	100
RS2/RD2-2415T10AX	24	8	53	5 , 15	100 , 33	78	100
RS2/RD2-0505E10AX	5	25	266	5 , 5	100 , 100	75	100
RS2/RD2-0507E10AX	5	25	259	7.2 , 7.2	69 , 69	77	100
RS2/RD2-0509E10AX	5	25	253	9 , 9	56 , 56	79	100
RS2/RD2-0512E10AX	5	25	250	12 , 12	42 , 42	80	100
RS2/RD2-0515E10AX	5	25	243	15 , 15	33 , 33	82	100
RS2/RD2-1205E10AX	12	15	111	5 , 5	100 , 100	75	100
RS2/RD2-1207E10AX	12	15	108	7.2 , 7.2	69 , 69	77	100
RS2/RD2-1209E10AX	12	15	108	9 , 9	56 , 56	77	100
RS2/RD2-1212E10AX	12	15	104	12 , 12	42 , 42	80	100
RS2/RD2-1215E10AX	12	15	102	15 , 15	33 , 33	81	100
RS2/RD2-2405E10AX	24	8	55	5 , 5	100 , 100	75	100
RS2/RD2-2407E10AX	24	8	54	7.2 , 7.2	69 , 69	77	100
RS2/RD2-2409E10AX	24	8	52	9 , 9	56 , 56	79	100
RS2/RD2-2412E10AX	24	8	50	12 , 12	42 , 42	82	100
RD2-2415E10AX	24	8	50	15 , 15	33 , 33	82	100

1. Ripple/Noise measured with 20MHz bandwith.
2. Tested by minimal Vin and constant resistive load.
3. Measured Input reflected ripple current with a simulated source inductance of 12 µH.
4. Exceeding the absolute ratings of the unit could cause damage. It is not allowed for continuous operating.
5. Operation under no-load conditions will not damage these devices, however, they may not meet all listed specifications.

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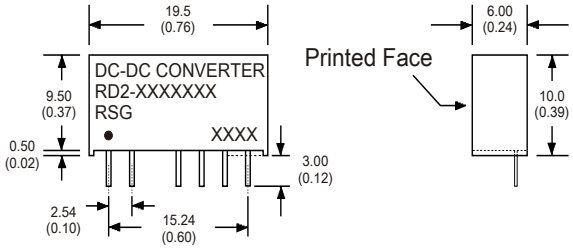
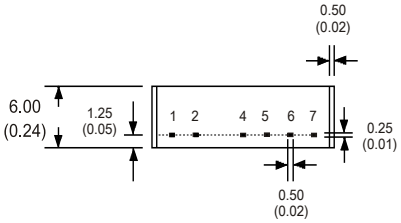
MECHANICAL SPECIFICATIONS

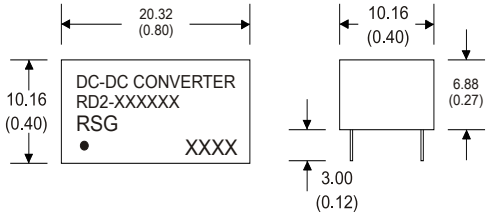


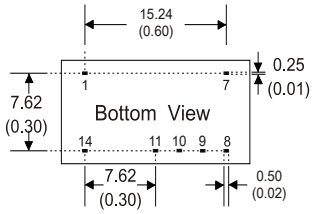
* The thickness of 48V input voltage model is 7.20(0.28)



7 Pin SIL Package

Notes : All dimensions are typical in millimeters (inches).
1. Pin diameter: 0.5±0.05 (0.02±0.002)
2. Pin pitch and length tolerance: ±0.35 (±0.014)
3. Case Tolerance: ±0.5 (±0.02)





14 Pin DIL Package

Notes : All dimensions are typical in millimeters (inches).
1. Pin diameter: 0.5±0.05 (0.02±0.002)
2. Pin pitch and length tolerance: ±0.35 (±0.014)
3. Case Tolerance: ±0.5 (±0.02)

Notes:
1. Packing information please refer to „Product Packing Information“. Packing bag number: 58210023;
2. If the product is operated out of the min. load requirement, the product performance may not meet all parameter indexes in this datasheet;
3. The max. capacitive load offered is tested at nominal input voltage and full load;
4. Unless otherwise specified,parameter indexes in this datasheet is measured under the conditions of Ta=25°C, humidity<75% with nominal input voltage and rated output load;
5. All testing methods in this datasheet are based on our Company's corporate standards;
6. The parameter indexes above are for the modules listed in this datasheet, for non-standard module's parameter indexes, please contact our technicians for specific information;
7. We can provide custom design;
8. Specifications are subject to change without prior notice.

SIL 7

PIN CONNECTIONS	
PIN NUMBER	Dual Separate
1	+V Input
2	−V Input
4	+V1 Output
5	−V1 Output
6	+V2 Output
7	−V2 Output

(The Pin Connection of high isolation one is the same with normal one.)

DIL 14

PIN CONNECTIONS	
PIN NUMBER	Dual Separate
1	−V Input
7	N.C
8	−V2 Output
9	+V2 Output
10	−V1 Output
11	+V1 Output
14	+V Input

(The Pin Connection of high isolation one is the same with normal one.)

The models listed here are just standard type. If you need a product with special specification or you have questions regarding packing standards (Tube oder Tape/Reel) as well as application support, please contact our specialists: sales@rsg-electronic.de or +49 69-984047-41/-28

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