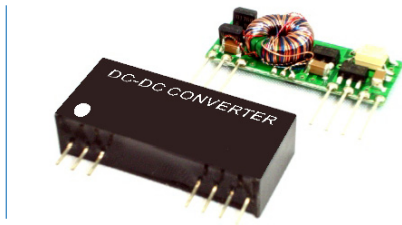


# RS6-R15

1.5 Watt regulated  
single output



SIL 12 package, pic. similar

- 12 Pin SIL package
- 1000 VDC isolation up to 3000 VDC isolation
- Continuous short circuit protection
- Efficiency up to 68%
- -25°C~71°C operation temperature range

## OUTPUT SPECIFICATIONS

Voltage accuracy	± 2%
Line regulation	± 0.5%
Load regulation (From 0% to 100% Load)	± 0.5%
(3.3 V output model)	± 1.5%
Ripple & Noise (20 MHz bandwidth) (1)	75 mV pk-pk
Short circuit protection	Indefinite (automatic recovery)
Temperature coefficient	± 0.02%/°C
Capacitor load (2)	See table

## INPUT SPECIFICATIONS

Voltage range	± 10%
Max. input current	See table
No-load input current	See table
Input filter	Capacitors
Input reflected ripple current (3)	20 mA pk-pk

## GENERAL SPECIFICATIONS

Efficiency	See table
I/O isolation voltage (3 sec.)	
Input / output	1000 ~ 3000 VDC
I/O isolation capacitance	60 pF typ.
I/O isolation resistance	1000 M Ohm
Switching frequency	50 kHz typ.
Humidity	95% rel. H
Reliability calculated MTBF (MIL-HDBK-217F)	> 1.12 Mhrs.
Safety standard (designed to meet)	IEC 60950-1

## PHYSICAL SPECIFICATIONS

Case material	Non-conductive black plastic (UL94V-0 rated)
Pin material	0.5 mm Alloy42 solder-coated
Potting material	Epoxy (UL94V-0 rated)
Weight	7.2 g
Dimensions	1.26" x 0.32" x 0.57"

## ENVIRONMENT SPECIFICATIONS

Operating temperature	-25°C ~ 71°C (See derating curve)
Maximum case temperature	100°C
Storage temperature	-40°C ~ 125°C
Cooling	Nature convection

## ABSOLUTE MAXIMUM RATINGS (4)

These are stress ratings. Exposure of devices to any of these conditions may adversely affect long-term reliability.

Input voltage (100 mS)	
5 modes	0 ~ 7 VDC
12 modes	0 ~ 15 VDC
24 modes	0 ~ 28 VDC
Lead soldering temperature	260°C (1.5 mm from case 10 sec.)

All specifications typical at Ta = 25°C, nominal input voltage and full load unless otherwise specified.

The information and specifications contained in this data sheet are believed to be correct at time of publication. However, we accept no responsibility for consequences arising from printing errors or inaccuracies. Subject to change without notice.

## NOTE

- 1) Ripple / Noise measured with 20 MHz bandwidth.
- 2) Tested by minimal Vin and constant resistive load.
- 3) Measured input reflected ripple current with a simulated source inductance of 12uH.
- 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.

The models listed are just for standard type. If you need a special specification product, please contact our service. Phone: +49 69 984047-0, mail to: info@rsg-electronic.de or use the forms on www.rsg-electronic.de („Kontakt“).

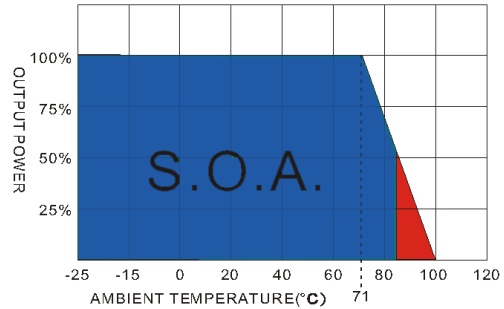
# RS6-R15

1.5 Watt regulated  
single output

## NUMBER STRUCTURE

<b>RS6</b>	-	<b>XX</b>	<b>XX</b>	<b>R</b>	<b>15</b>	<b>A</b>	<b>X</b>
<b>Name/Package</b> RS6=SIL12		<b>Input</b> 05=5V 12=12V 24=24V	<b>Output</b> 03=3.3V 05=5V 07=7.2V 09=9V 12=12V 15=15V 18=18V 24=24V	<b>Type</b> R=Single regulated	<b>Power</b> 15=1.5W	<b>Code</b> internal	<b>Isolation</b> 1=1.0 kVDC 3=3.0 kVDC

## DERATING CURVE



## MODEL SELECTION GUIDE

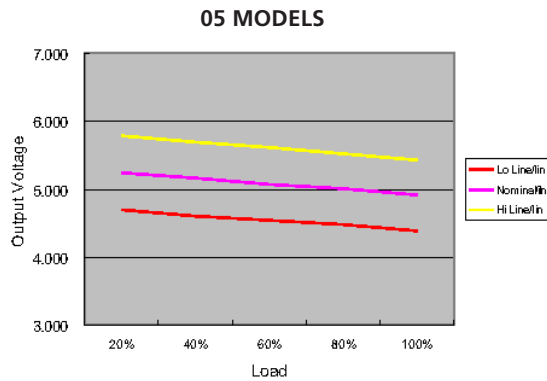
Model Number	Input Range VDC	Input current (mA) No Load / Full Load	Output VDC	Output current Full Load (mA)	Efficiency @FL (%)	Capacitor Load (μF)
RS6-0503R15AX	5	70 / 432	3.3	400	61	220
RS6-0505R15AX	5	70 / 454	5	300	66	220
RS6-0507R15AX	5	70 / 454	7.2	208.3	66	220
RS6-0509R15AX	5	90 / 454	9	166.6	66	220
RS6-0512R15AX	5	90 / 447	12	125	67	220
RS6-0515R15AX	5	90 / 447	15	100	67	220
RS6-0518R15AX	5	90 / 447	18	83.3	67	220
RS6-0524R15AX	5	130 / 441	24	62.5	68	220
RS6-1203R15AX	12	50 / 180	3.3	400	61	220
RS6-1205R15AX	12	50 / 189	5	300	66	220
RS6-1207R15AX	12	50 / 186	7.2	208.3	67	220
RS6-1209R15AX	12	50 / 186	9	166.6	67	220
RS6-1212R15AX	12	50 / 186	12	125	67	220
RS6-1215R15AX	12	50 / 183	15	100	68	220
RS6-1218R15AX	12	50 / 183	18	83.3	68	220
RS6-1224R15AX	12	50 / 183	24	62.5	68	220
RS6-2403R15AX	24	25 / 88	3.3	400	62	220
RS6-2405R15AX	24	25 / 96	5	300	65	220
RS6-2407R15AX	24	25 / 96	7.2	208.3	65	220
RS6-2409R15AX	24	25 / 96	9	166.6	65	220
RS6-2412R15AX	24	25 / 93	12	125	67	220
RS6-2415R15AX	24	25 / 93	15	100	67	220
RS6-2418R15AX	24	25 / 93	18	83.3	67	220
RS6-2424R15AX	24	25 / 91	24	62.5	68	220



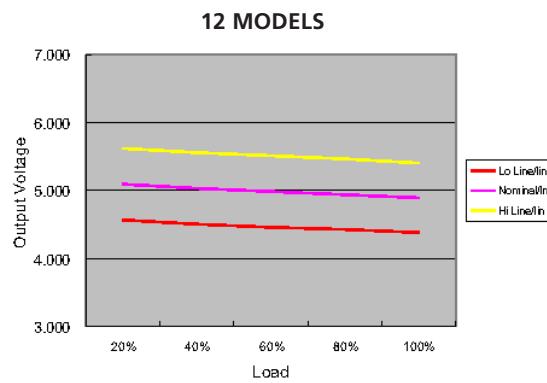
# RS6-R15

1.5 Watt regulated  
single output

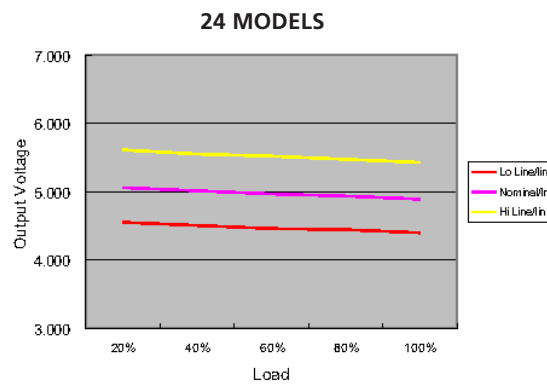
## LOADING VS OUTPUT VOLTAGE 05



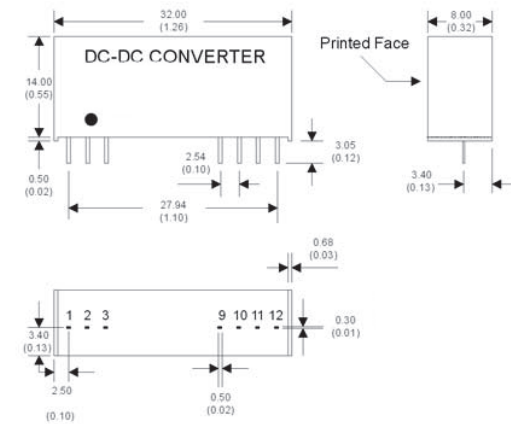
## LOADING VS OUTPUT VOLTAGE 12



## LOADING VS OUTPUT VOLTAGE 24



## MECHANICAL SPECIFICATIONS 12 Pin SIL



Notes:

All dimensions are typical in millimeters (inches).

1) Pin diameter:  $0.5 \pm 0.05$  ( $0.02 \pm 0.002$ )

2) Pin pitch tolerance:  $\pm 0.35$  ( $\pm 0.014$ )

3) Case tolerance:  $\pm 0.5$  ( $\pm 0.02$ )

## PIN CONNECTIONS

PIN NUMBER	Single	Single -A3
1	+V Input	+V Input
2	N.C.	-V Input
3	N.C.	N.C.
9	N.C.	N.C.
10	-V Output	-V Output
11	+V Output	+V Output
12	-V Input	N.C.