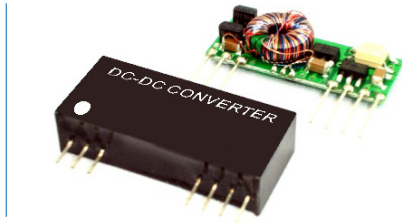


RS6-R20

2.0 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 69%
- -25°C~71°C operation temperature range

OUTPUT SPECIFICATIONS

Voltage accuracy	± 2%
Line regulation	± 0.5%
Load regulation (From 0% to 100% Load) (3.3 V output model)	± 0.5% ± 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 $T_a = 25^\circ\text{C}$, 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 V_{in} 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“).

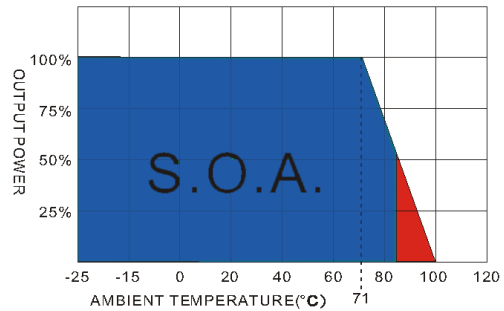
RS6-R20

2.0 Watt regulated
single output

NUMBER STRUCTURE

RS6	-	XX	XX	R	20	A	X
Name/Package		Input	Output	Type	Power	Code	Isolation
RS6=SIL12		05=5V 12=12V 24=24V	03=3.3V 05=5V 07=7.2V 09=9V 12=12V 15=15V 18=18V 24=24V	R=Single regulated	20=2.0W	internal	1=1.0 kVDC 3=3.0 kVDC

DERATING CURVE



MODEL SELECTION GUIDE

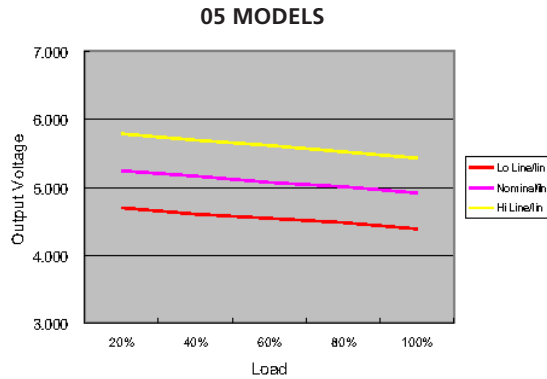
Model Number	Input Range VDC	Input current (mA) No Load / Full Load	Output VDC	Output current Full Load (mA)	Efficiency @FL (%)	Capacitor Load (μF)
RS6-0503R20AX	5	70 / 515	3.3	500	64	330
RS6-0505R20AX	5	70 / 606	5	400	66	330
RS6-0507R20AX	5	70 / 606	7.2	277.7	66	330
RS6-0509R20AX	5	70 / 597	9	222.2	67	330
RS6-0512R20AX	5	80 / 597	12	166.6	67	330
RS6-0515R20AX	5	80 / 597	15	133.3	67	330
RS6-0518R20AX	5	80 / 597	18	111.1	67	330
RS6-0524R20AX	5	80 / 579	24	83.3	69	330
RS6-1203R20AX	12	30 / 214	3.3	500	64	330
RS6-1205R20AX	12	30 / 252	5	400	66	330
RS6-1207R20AX	12	30 / 252	7.2	277.7	66	330
RS6-1209R20AX	12	45 / 248	9	222.2	67	330
RS6-1212R20AX	12	45 / 248	12	166.6	67	330
RS6-1215R20AX	12	45 / 248	15	133.3	67	330
RS6-1218R20AX	12	50 / 245	18	111.1	68	330
RS6-1224R20AX	12	50 / 245	24	83.37	68	330
RS6-2403R20AX	24	25 / 107	3.3	500	64	330
RS6-2405R20AX	24	25 / 124	5	400	67	330
RS6-2407R20AX	24	25 / 124	7.2	277.7	67	330
RS6-2409R20AX	24	25 / 122	9	222.2	68	330
RS6-2412R20AX	24	25 / 122	12	166.6	68	330
RS6-2415R20AX	24	25 / 122	15	133.3	68	330
RS6-2418R20AX	24	25 / 120	18	111.1	69	330
RS6-2424R20AX	24	25 / 120	24	83.3	69	330



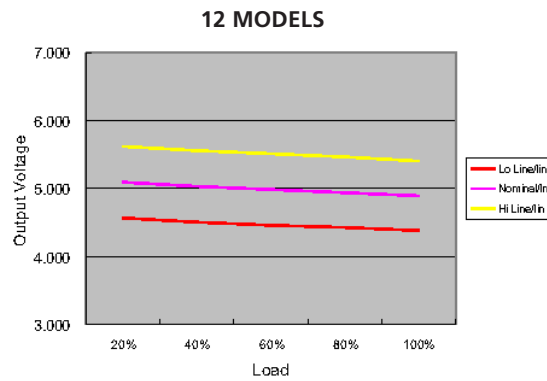
RS6-R20

2.0 Watt regulated
single output

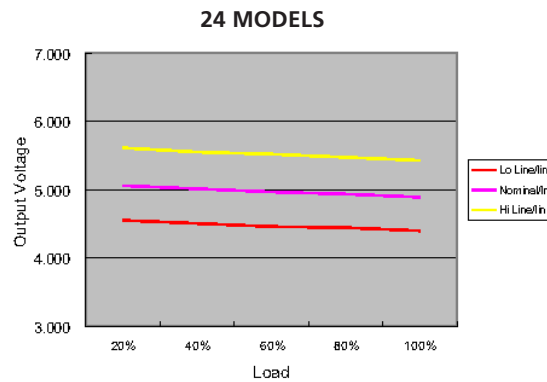
LOADING VS OUTPUT VOLTAGE 05



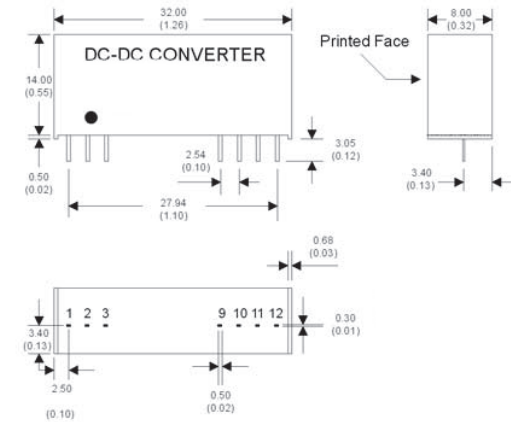
LOADING VS OUTPUT VOLTAGE 12



LOADING VS OUTPUT VOLTAGE 24



MECHANICAL SPECIFICATIONS 12 Pin SIL



Notes:

All dimensions are typical in millimeters (inches).

- 1) Pin diameter: 0.5 ± 0.05 (0.02 ± 0.002)
- 2) Pin pitch tolerance: ± 0.35 (± 0.014)
- 3) Case tolerance: ± 0.5 (± 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.