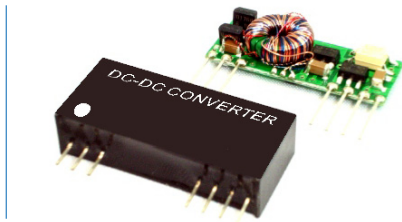


RS6-R30

3.0 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 71%
- -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“).

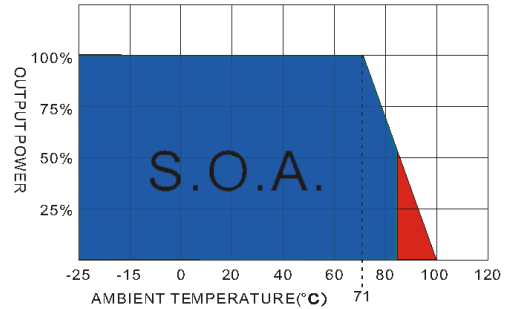
RS6-R30

3.0 Watt regulated
single output

NUMBER STRUCTURE

RS6	-	XX	XX	R	30	A	X
Name/Package RS6=SIL12		Input 05=5V 12=12V 24=24V	Output 03=3.3V 05=5V 07=7.2V 09=9V 12=12V 15=15V 18=18V 24=24V	Type R=Single regulated	Power 30=3.0W	Code internal	Isolation 1=1.0 kVDC 3=3.0 kVDC

DERATING CURVE



MODEL SELECTION GUIDE

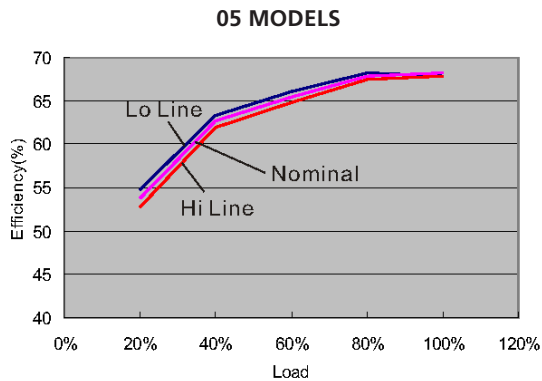
Model Number	Input Range VDC	Input current (mA) No Load / Full Load	Output VDC	Output current Full Load (mA)	Efficiency @FL (%)	Capacitor Load (μF)
RS6-0503R30AX	5	100 / 748	3.3	600	53	470
RS6-0505R30AX	5	100 / 968	5	600	62	470
RS6-0507R30AX	5	100 / 938	7.2	416	64	470
RS6-0509R30AX	5	100 / 896	9	333	67	470
RS6-0512R30AX	5	100 / 858	12	250	70	470
RS6-0515R30AX	5	100 / 883	15	200	68	470
RS6-0518R30AX	5	120 / 938	18	166	64	470
RS6-0524R30AX	5	120 / 938	24	125	64	470
RS6-1203R30AX	12	60 / 300	3.3	600	55	470
RS6-1205R30AX	12	60 / 417	5	600	60	470
RS6-1207R30AX	12	60 / 397	7.2	416	63	470
RS6-1209R30AX	12	60 / 374	9	333	67	470
RS6-1212R30AX	12	60 / 363	12	250	69	470
RS6-1215R30AX	12	60 / 358	15	200	70	470
RS6-1218R30AX	12	60 / 391	18	166	64	470
RS6-1224R30AX	12	60 / 368	24	125	68	470
RS6-2403R30AX	24	30 / 153	3.3	600	54	470
RS6-2405R30AX	24	30 / 205	5	600	61	470
RS6-2407R30AX	24	30 / 198	7.2	416	63	470
RS6-2409R30AX	24	30 / 193	9	333	65	470
RS6-2412R30AX	24	30 / 179	12	250	70	470
RS6-2415R30AX	24	30 / 176	15	200	71	470
RS6-2418R30AX	24	30 / 181	18	166	69	470
RS6-2424R30AX	24	30 / 176	24	125	71	470



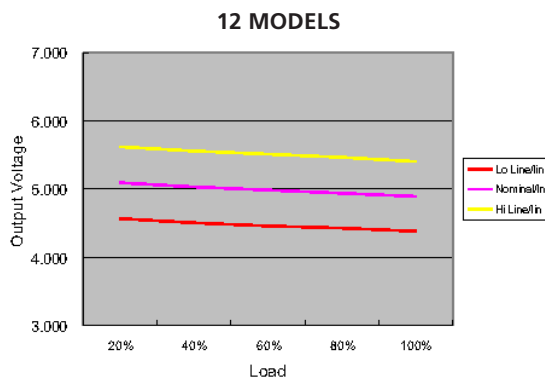
RS6-R30

3.0 Watt regulated
single output

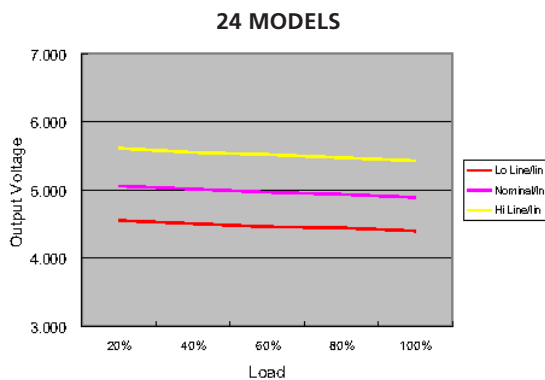
EFFICIENCY VS OUTPUT CURRENT 05



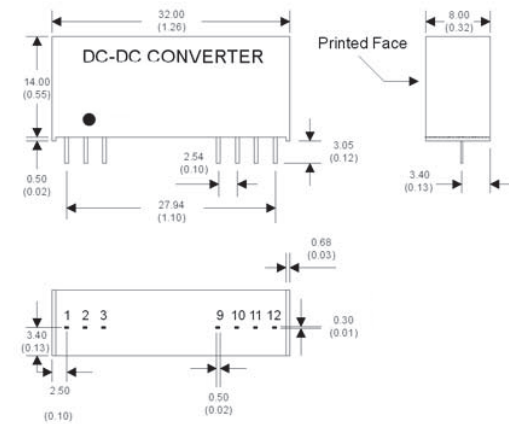
EFFICIENCY VS OUTPUT CURRENT 12



EFFICIENCY VS OUTPUT CURRENT 24



MECHANICAL SPECIFICATIONS



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.