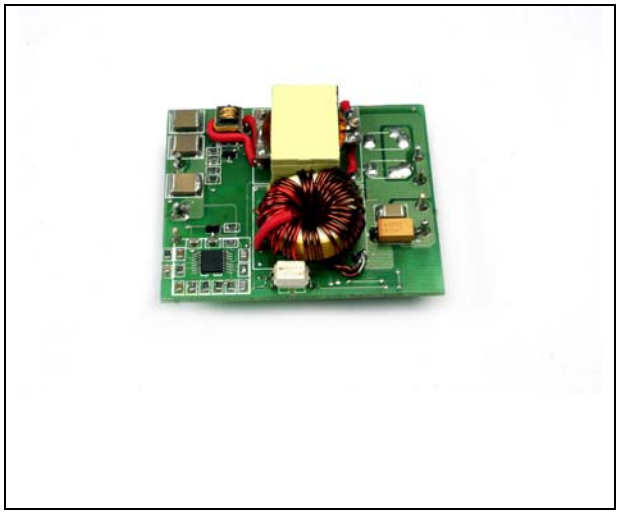
DATA SHEET
OPEN FRAME DC-DC MODULE.
Model no. SDOF2

FEATURES

- Up To 100 Watts Output Power
- Low Profile 56 x 48 x 13mm
- Input Voltage Ranges to Cover Most Applications
- Over Current Protection, Auto Recovery
- High efficiency up to 95%
- Within FCC Class A Limits
- Manufactured in ISO9001 Certified Facility



The SDOF2 Series of DC/DC converters feature units up to 100 watts in a 56 x 48 x 13mm package. The units are PC mountable and require an input filter for low reflected ripple. Includes continuous short circuit protection, up to 1600VDC input/output isolation and typical efficiencies of > 80%. All the models are particularly suited to Telecom, Industrial & Test equipment Applications

SPECIFICATIONS: SDOF2 SERIES

All specifications apply @ +25 C ambient unless otherwise noted.

INPUT SPECIFICATIONS

Input voltage range .....…… 36-72VDC
Nominal input.....……48VDC
Input filter.....Pi network
Input surge voltage.....48 V input..... 100VDC (100mS max)
Input reflected ripple (Note 1) nominal Vin and FL...30mA p-p
Start up time nominal Vin and constant res load.....20mS typ

OUTPUT SPECIFICATIONS

Output power..... ..... 100 Watts, max
Output current..... .....…..30A, max
Multiple Output ……As per custom requirements
Voltage accuracy.....full load and nominal Vin …....±2% max
Voltage balance.....dual output with bal. load .....±1% max
Minimun load (Note 3) .....……..10% of FL
Line regulation.....LL to HL at full load .....….....±1%
Load regulation .....10% to 100% FL.…single output ±1%
dual output ±2%
Cross regulation .....assym. load 25% / 100% FL …....±5%
Ripple and noise .....20MHz bandwidth……single 50mV p-p
dual 75mV p-p
Temperature coefficient.....….±0.02% / °C max
Over voltage protection .....As per cust. Requirement.
(b/w 110% TO 150% OF O/P Vg.)
Over load protection.....% of FL at nominal Vin .....150% typ
Short circuit protection .....….hiccup, automatic recovery
Transient response ....25% load step change ….....500uS

GENERAL SPECIFICATIONS

Efficiency .....above 85%
Isolation voltage.....1600VDC min
Isolation resistance .....109Ohms min
Isolation capacitance.....300pF max
Switching frequency .....300kHz typ
standards.....……..IEC60950
Dimensions..... 56 x 48 x 13mm
Pin Pitch…….As per Industry Standards /Custom requirements
Weight..... 40 gms.
MTBF (Note 4).....1.976x106 Hrs

ENVIRONMENTAL SPECIFICATIONS

Operating temperature .....-25 ~ +85°C (with de-rating)
Maximum case temperature .....+100°C
Storage temperature.....-55 ~ +105°C
Thermal impedance (Note 5) .....natural convection 12°C/watt
natural convection w/heat sink 10°C/watt
Thermal shock.....MIL-STD-810D
Vibration .....10~55Hz, 2G, 30 minutes along X,Y and Z
Humidity .....5% - 95% RH

EMC CHARACTERISTICS

Conducted emissions.....EN55022.....Level A

Due to advances in technology, specifications subject to change without notice. 01/01/06

RANGES:

Model No.	Input Voltage	Output Voltage	Output Current	Output Power	OVP Set Point
Units	(VDC)	(VDC)	(A)	(Watts)	(VDC)
SDOF2A	36 – 72	1.8	10	18	1.98 to 2.7
SDOF2B	36 – 72	1.8	20	36	1.98 to 2.7
SDOF2C	36 – 72	1.8	30	54	1.98 to 2.7
SDOF2D	36 – 72	2.5	10	25	2.75 to 3.75
SDOF2E	36 – 72	2.5	20	50	2.75 to 3.75
SDOF2F	36 – 72	2.5	30	75	2.75 to 3.75
SDOF2G	36 – 72	3.3	10	33	3.63 to 4.95
SDOF2H	36 – 72	3.3	15	49.5	3.63 to 4.95
SDOF2I	36 – 72	3.3	20	66	3.63 to 4.95
SDOF2J	36 – 72	3.3	25	82.5	3.63 to 4.95
SDOF2K	36 – 72	3.3	30	99	3.63 to 4.95
SDOF2L	36 – 72	5	5	25	5.5 to 7.5
SDOF2M	36 – 72	5	10	50	5.5 to 7.5
SDOF2N	36 – 72	5	15	75	5.5 to 7.5
SDOF2O	36 – 72	5	20	100	5.5 to 7.5
SDOF2P	36 – 72	12	3	36	13.2 to 18
SDOF2Q	36 – 72	12	5	60	13.2 to 18
SDOF2R	36 – 72	12	8	96	13.2 to 18
SDOF2S	36 – 72	15	4	60	16.5 to 22.5
SDOF2T	36 – 72	15	6	90	16.5 to 22.5
SDOF2U	36 – 72	18	2.5	45	19.8 to 27
SDOF2V	36 – 72	18	5	90	19.8 to 27
SDOF2W	36 – 72	24	1	24	26.4 to 36
SDOF2X	36 – 72	24	2	48	26.4 to 36
SDOF2Y	36 – 72	24	3	72	26.4 to 36
SDOF2Z	36 – 72	24	4	96	26.4 to 36

NOTES:

1. Please add an External filter at Converter input terminals when measuring input reflected ripple. L: Simulated source impedance of 12µH. 12µH inductor in series with +Vin. C:100 µF/100V
2. The SDEM1 series requires a minimum 10% loading on the output to maintain specified regulation.
3. Operation under no-load condition will not damage these devices, however they may not meet all listed specifications.
4. Over Voltage protection set point as per user requirement b/w 110% TO 150% of O/P Vg.
5. Heat sink optional, consult factory.
6. Typical value at nominal input voltage and full load.
7. PC pins – 1.016 mm diameter x 5.08 mm long (min.).