Features:

- Fixed voltage input, isolated non regulated dual output

- Working temperature range -40 ℃ to+85 ℃

- Small SMD package, international standard pin method

- Isolation voltage 1500Vdc

- Typical efficiency up to 85%

- 3 year warranty

Model List

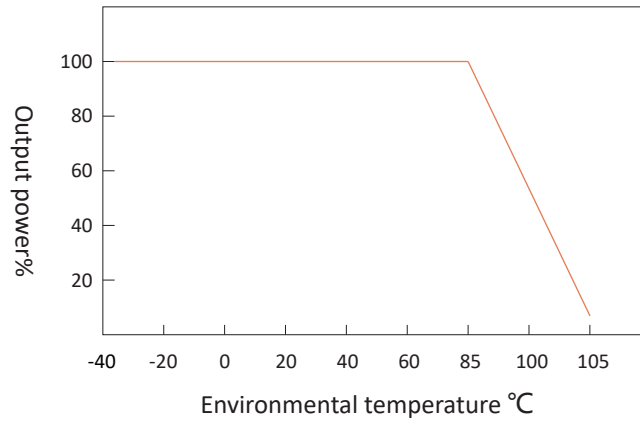| Model	Input voltage (Vdc)	Output voltage (Vdc)	Output current (mA)	Efficiency (%)	Maximum capacity load
DSM1-0310	3.3(3.0-3.6)	3.3	303	81	1000uF
DSM1-0311	3.3(3.0-3.6)	5	200	82	1000uF
DSM1-0313	3.3(3.0-3.6)	12	83	83	1000uF
DSM1-0510	5(4.5-5.5)	3.3	303	80	1000uF
DSM1-0511	5(4.5-5.5)	5	200	84	2200uF
DSM1-0512	5(4.5-5.5)	9	111	85	2200uF
DSM1-0513	5(4.5-5.5)	12	83	84	1000uF
DSM1-0514	5(4.5-5.5)	15	67	85	1000uF
DSM1-0515	5(4.5-5.5)	24	42	84	680uF
DSM1-1210	12(10.8-13.2)	3.3	303	81	2200uF
DSM1-1211	12(10.8-13.2)	5	200	85	2200uF
DSM1-1212	12(10.8-13.2)	9	111	85	2200uF
DSM1-1213	12(10.8-13.2)	12	83	85	1000uF
DSM1-1214	12(10.8-13.2)	15	67	85	1000uF
DSM1-1215	12(10.8-13.2)	24	42	88	1000uF

Product parameters

Line regulation	---	1.5% max.
Lold regulation	10%~ 100% full load	15%max.
Isolation voltage	Leakage current < 1mA/1min.	1500Vdc min.
Isolation resistance	Test at 500vDc	1000mΩ min.
Switching frequency	---	250KHz typ.
Ripple and noise	Bend width 20MHz	100mVp-p max.
Temperature coefficient	Rated load	+0.03%/'C max.
Operating temperature range	---	-40℃ to +85℃
Storage temperature range	---	-55℃ to +125℃
Short circuit protection	---	support
MTBF	---	3500KHrs
Weight	---	1.2g
Conducted Emission	CISPR32/EN55032 CLASS B(Refer to EMC recommended circuit)	
Radiated disturbance	CISPR32/EN55032 CLASS B(Refer to EMC recommended circuit)	

1.Other input and output models may available on request;

2. Above models are default to metal case.

3.Both positive and negative outputs have the same capacitive load.

4.Ripple noise is generated by connecting a 12 # twisted pair cable, setting the oscilloscope bandwidth to 20MHz, using a 100M bandwidth probe, and parallel connecting a 0.1uF polypropylene capacitor and a 4.7uF high-frequency low resistance electrolytic capacitor at the probe end. The oscilloscope uses Sample sampling mode for sampling.
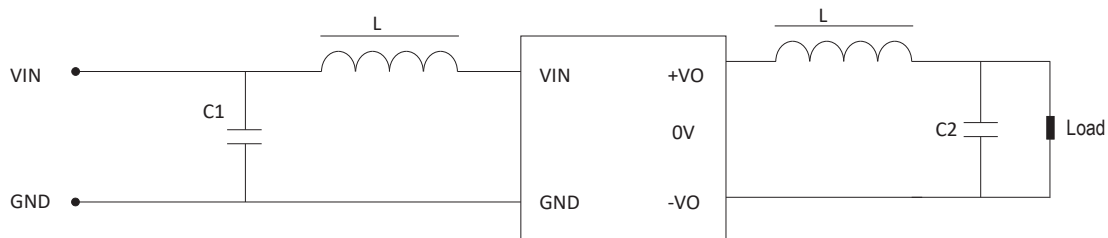
Size&Pin Definition

Top view	Side view

Top view:
12,8 [0,504]
11,1 [0,437]
2,54 [0,100]
0,5 [0,020]
7,8 [0,307]

Side view:
0,5mm [0,020inth]
6.2mm [0,248inth]
6.3mm [0,248inth]

Layout recommendation	Pin Definition

Pin Definition	
1	GND
2	VIN
4	0V
5	+Vo
3.6.7.8	NC

Grid distance 2.54 * 2.54mm
Terminal section tolerance:±0.10mm(±0.004inch)
Unmarked tolerances:±0.25mm(±0.010inch)

Attention: NC cannot be connected to any external circuit

Temperature reduction curve

LC filtering circuit

Try to avoid no-load use: When the load power consumption is less than 10% of the output rated power of the module, it is recommended to connect a dummy load outside the output end or select a module with smaller rated power, the dummy load (resistance) can be calculated according to 10% of the rated power of the module, the resistance value R=U2 / (10%×1W); The output external capacitor should not be too large: the capacity of the output external capacitor C2 should not be too large, otherwise it is easy to cause overcurrent or poor start when the module is started, which should be selected according to the capacitor external table;The input of this series does not support parallel use of hot swap and output
For occasions with high ripple noise requirements, an external LC filter circuit should be connected, and the resonant frequency of the LC filter is much smaller than the switching frequency of the DC/DC module to prevent mutual interference, resulting in increased output ripple or module damage, as shown in the figure above:

Recommended basic application circuits
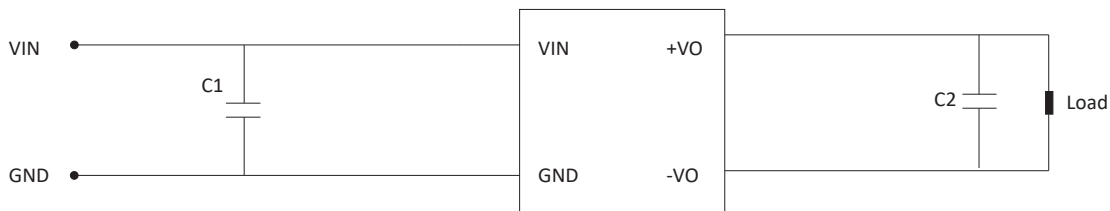
Input voltage	C1	output voltage	C2
3.3VDC	4.7uF	3.3VDC	10uF
5VDC	4.7uF	5VDC	4.7uF
12VDC	2.2uF	12VDC	2.2uF
15/24VDC	1uF	15/24VDC	1uF