

DM17-05

power

Industrial grade, high quality, high input, ultra low consumption, buck DC-DC power module

REV3.2 — 2017-03-05

User Manual

1. Please go to Point 7 for product introduction and more product selection details.

1.1. Module Features

DM17-55050016DS adopts design scheme of high-voltage, low-power and high-current. It is buck DC-DC power module, with maximum input voltage 55VDC and 150UA ultra low static current, fixed output 5V, maximum output current 1.6A, designed operating frequency is up to 0.5MHz. DM17-55050016DS is cost-effective and with high stability. It is with fully industrial-grade components, long working voltages with no drift, suitable for high-quality applications, It has been produced in batches and can be used with confidence.

1.2 Typical application

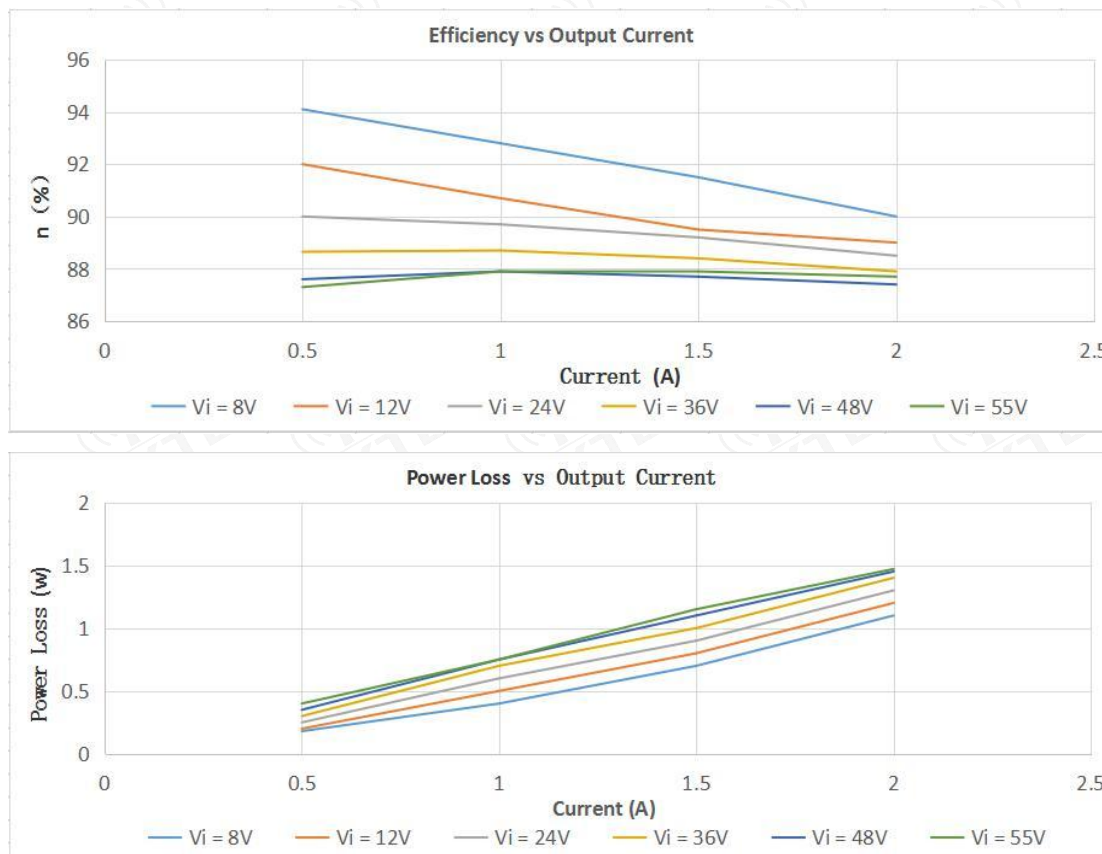
Widely used in communication equipment, digital radio, industrial control motherboard, toys, models, single-chip motherboards, home appliances, car power, security monitoring, wild collection, street lights.

2. Electrical argument

No.	Parameter name	Parameter details
1	Module size	17×28×9.2mm
2	Device source	All import components from Japan, United States, Germany
3	Production process	lead-free processes, SMT (SMT guarantees bulk consistency and reliability)
4	Interface	2.54 plugin type and SMD type (SMD is strongly recommended)
5	Input voltage	8 ~ 55VDC
6	Input reverse protection	无
7	Output voltage	5.0V(this series has fixed output 3.3V、 5V、 9V、 12V、 24V、 36V, and

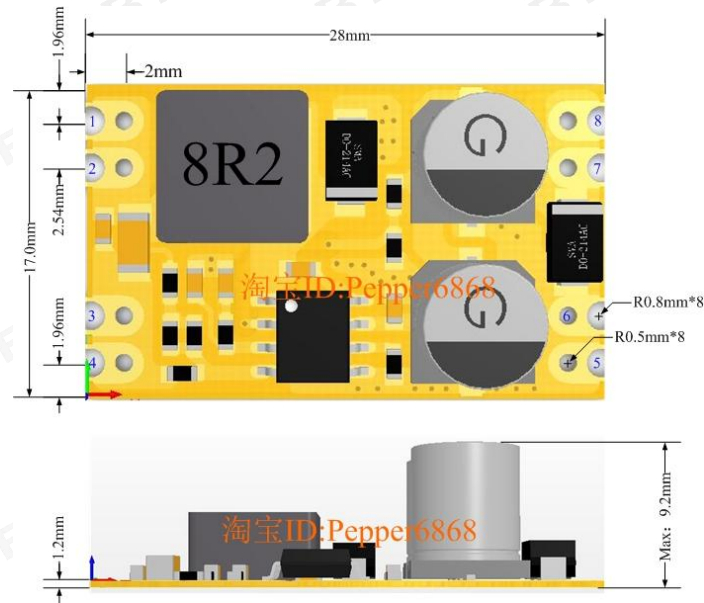
		customized voltage is available.)
8	Output accuracy	$\pm 0.1V$
10	Max. output current	2A
11	full load output ripple Vpp	<50mV
12	Static current	140uA
13	Turn-off functions	Not supported (can be customized)
14	Working temperature	-40°C ~ +85°C
15	Storage temperature	-10°C ~ +50°C
16	Working humidity	20% ~ 90% humidity, no condensed
17	Isolation	No isolation
18	Production factory aging standard	72 hours
19	Normal service life	50000 hours

3. Typical performance characteristics



4. Size description and pin definition

4.1. Size description



4.2. Pin definition

No.	Name	Direction	Use
1、 2	Vout +	output	Output power supply
3、 4	Vout -	output	Ground wire, output port power reference ground
5、 6	Vin -	input	Ground wire, link to power reference ground
7、 8	Vin+	input	Power supply input 6 ~ 55V, more than 55V can cause a module permanent damage

5. Precautions and Considerations

Welding iron needs good grounding, and using the body contact electronic components of the module as much as possible. (Our all production processes are performed in accordance with the official anti-static label of IC manufacturers).

The maximum input voltage must not exceed 55VDC, otherwise the module may be permanently damaged.

The maximum load current must not exceed 3.5A, otherwise the module may be permanently damaged.

Power Loss is recommended within 1.5W, more than 1.5W requires proper heat dissipation.

If input voltage works around the limit, pls increase the TVS muffler circuit, or large electrolysis.

6. Typical Application



7. Product Selection

Module model	Package	Input voltage	Fixed output	Max. current	Working frequency	Working humidity
DM17-55033020DS	SMD	4.5- 55Vdc	3.3±0.1V	2.0A	0.5MHz	-40 ~ 85℃
DM17-55050016DS	SMD	4.5- 55Vdc	5.0±0.1V	1.6A	0.5MHz	-40 ~ 85℃

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