

**FEATURES:**

- Constant voltage input, isolation of non-regulated double output, power 1W
- Operating temperature range -40°C to +105°C
- Small SMD package, international standard pin method
- Isolation voltage 3000Vdc
- Typical efficiency up to 86%
- 3 year warranty



**MODEL LIST**

Model	Input voltage (Vdc)	Output voltage (Vdc)	Output current (mA)	Efficiency (%)	Maximum capacity load
DTM1-0521F	5 (4.5-5.5)	±5	±100/±10	84	1200uF
DTM1-0522F	5 (4.5-5.5)	±9	±55/±6	84	1200uF
DTM1-0523F	5 (4.5-5.5)	±12	±42/±4	84	470uF
DTM1-0524F	5 (4.5-5.5)	±15	±33/±3	83	330uF
DTM1-1221F	12 (10.8-13.2)	±5	±100/±10	84	1200uF
DTM1-1223F	12 (10.8-13.2)	±12	±42/±4	85	470uF
DTM1-1224F	12 (10.8-13.2)	±15	±33/±3	86	470uF
DTM1-2421F	24 (21.6-26.4)	±5	±100/±10	84	1200uF
DTM1-2423F	24 (21.6-26.4)	±12	±42/±4	85	470uF
DTM1-2424F	24 (21.6-26.4)	±15	±33/±3	85	470uF

**PRODUCT PARAMETERS**

Line regulation	---	2.0% max.
Load regulation	10%~ 100% full load	15%max.
Isolation voltage	Leakage current < 1mA/1min.	3000Vdc min.
Isolation resistance	Test at 500vDc	1000mΩ min.
Switching frequency	---	330KHz typ.
Ripple and noise	Band width 20MHz	100mVp-p max.
Temperature coefficient	Rated load	+0.03%/°C max.
Operating temperature range	---	-40°C to +85°C
Storage temperature range	---	-55°C to +125°C
Short circuit protection	---	1S
MTBF	---	3000KHrs
Weight	---	1.4g
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**

**Layout recommendation**

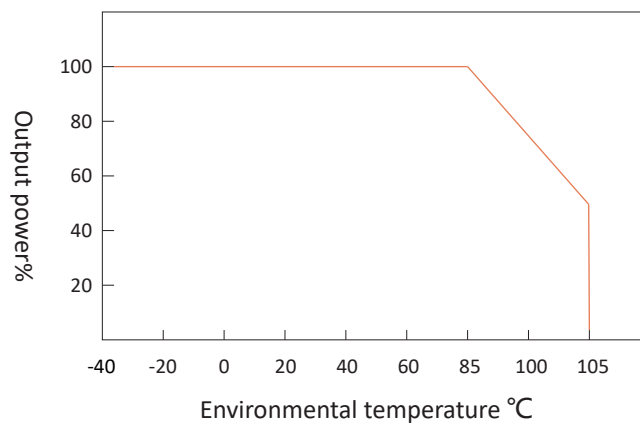
Grid distance 2.54 \* 2.54mm  
Terminal section tolerance: ±0.10mm(±0.004inch)  
Unmarked tolerances: ±0.25mm(±0.010inch)

**Pin Definition**

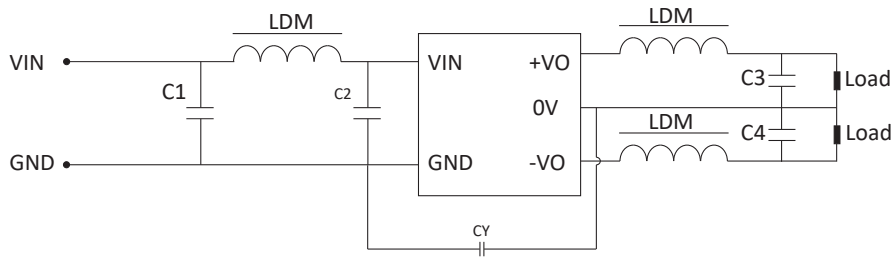
Pin	Dual	
1	GND	
2	VIN	
4	0V	
5	-Vo	
7	+Vo	
10	NC	

Attention: NC cannot be connected to any external circuit

TEMPERATURE REDUCTION CURVE

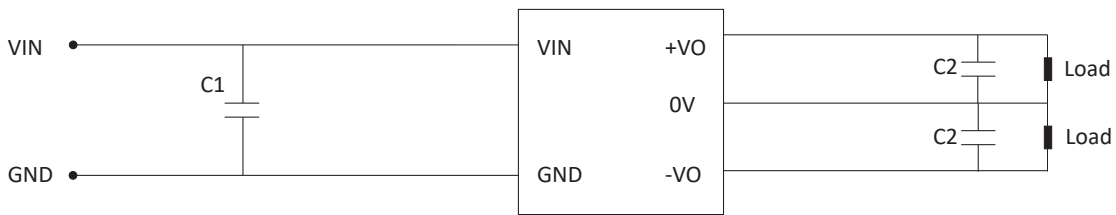


EMC RECOMMENDED CIRCUIT



INPUT VOLTAGE	C1/C2	CY	LDM	C3
5V	4.7UF/16V	270pf/2kv	6.8uH	Refer to the "Recommended Capacity Copy Value Table"
12V	4.7UF/50V	270pf/2kv	6.8uH	
15V	4.7UF/50V	270pf/2kv	6.8uH	
24V	43.7UF/50V	270pf/2kv	6.8uH	

RECOMMENDED BASIC APPLICATION CIRCUITS



Ecommended Capacity Copy Value Table

INPUT VOLTAGE	C1	OUTPUT VOLTAGE	C2
5V	10UF/16V	±5	4.7UF/16V
12V	2.2UF/25V	±9	2.2UF/25V
15V	2.2UF/25V	±12	1UF/25V
24V	1UF/50V	±15	1UF/50V

NOTE:

To ensure the efficient and reliable operation of the module, its minimum output load should not be less than 10% of the rated load during use. If the power you require is indeed small, please parallel one at the output end A resistor (the sum of the power consumed by the resistor and the actual power used is greater than or equal to 10% of the rated power).

Note:

1. The product should be used within the specification range, otherwise it may cause permanent damage to the product;
2. If the product operates below the minimum required load, it cannot be guaranteed that the product performance meets all performance indicators in this manual;
3. If the product operates beyond its load range, it cannot be guaranteed that its performance meets all performance indicators in this manual;
4. Unless otherwise specified, the above data were measured at Ta=25 °C, humidity<75%, input nominal voltage, and output rated load (pure resistance load);
5. All the above indicator testing methods are based on our company's standards;
6. The above are the performance indicators of the product models listed in this manual. Some indicators of non-standard models may exceed the above requirements. For specific situations, please contact our technical personnel directly;