

#### **Features:**

- Fixed voltage input, isolated non regulated dual output
- Working temperature range -40 °C to+105 °C
- Small SMD package, international standard pin method
- Isolation voltage 1500Vdc
- Typical efficiency up to 86%
- 3 year warranty



## **Model List**

Model	Input voltage (Vdc)	Output voltage (Vdc)	Output current (mA)	Efficiency (%)	Maximum capacity load
DTM1-0521	5(4.5~5.5)	±5	±100/±10	84	1200UF
DTM1-0523	5(4.5~5.5)	±12	±42/±4	84	470UF
DTM1-1221	12(10.8~13.2)	±5	±100/±10	84	1200UF
DTM1-1223	12(10.8~13.2)	±12	±42/±4	85	470UF
DTM1-1224	12(10.8~13.2)	±15	±33/±3	86	470UF
DTM1-2411	24(21.6~26.4)	±5	±100/±10	84	1200UF

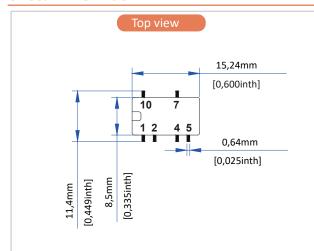
## **Product parameters**

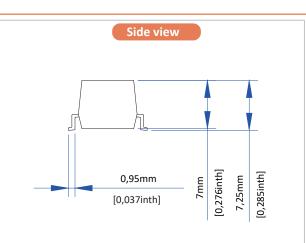
Line regulation		1.5% max.		
Lold regulation	10%~ 100% full load	15%max.		
Isolation voltage	Leakage current < 1mA/1min.	1500Vdc min.		
Isolation resistance	Test at 500vDc	1000m $Ω$ min.		
Switching frequency		330KHz typ.		
Ripple and noise	Bend width 20MHz	150mVp-p max.		
Temperature coefficient	Rated load	+0.03%/'C max.		
Operating temperature range		-40°C to +85°C		
Storage temperature range		-55°C to +125°C		
Short circuit protection		<b>1</b> S		
MTBF		3000KHrs		
Weight		1.4g		
Conducted Emission	CISPR32/EN55032 CLASS B(Refer to EMC re	CISPR32/EN55032 CLASS B(Refer to EMC recommended circuit)		
Radiated disturbance	CISPR32/EN55032 CLASS B(Refer to EMC re	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.

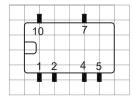


## Size&Pin Definition





## Layout recommendation



Grid distance 2.54 \* 2.54mm

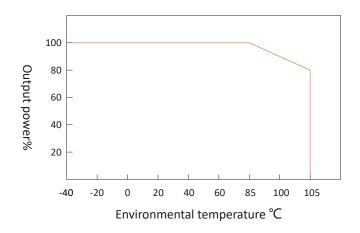
Terminal section tolerance:±0.10mm(±0.004inch)

Unmarked tolerances:±0.25mm(±0.010inch)

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

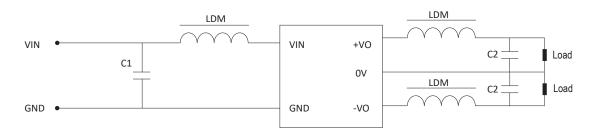
Attention: NC cannot be connected to any external circuit

## **Temperature reduction curve**



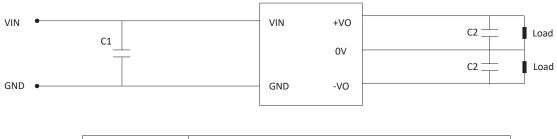


## **EMC Recommended Circuit**



C1	4.7UF/50V
C2	10UF/50V
LDM	6.8uH

## Recommended basic application circuits



# C1 4.7UF/50V C2 10UF/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  $^{\circ}$ 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;