

## Features

- ★ Small Footprint, High Efficiency up to 86%
- ★ Isolation Voltage 1000 VDC
- ★ 14 PIN DIP Package
- ★ Temperature Range:-40°C to +85°C
- ★ UL94V-0 Inflamming retarding package
- ★ MTBF>1 million hours(25°C)



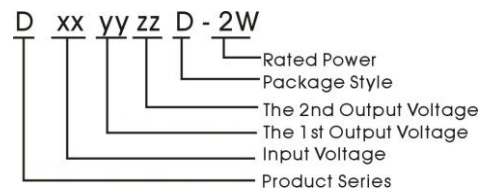
## Applications

The D\_2W Series are specially designed for application where a group of polar power supplies are isolated from the input power supply in a distributed power supply system on a circuit board.

These products apply to where:

Where the voltage of the input power supply is fixed (voltage variation  $\leq \pm 10\%$ ). Where isolation is necessary between input and output.( isolation voltage  $\leq 1000$  VDC)

Where the regulation of the output voltage and the output ripple noise are not demanding.



## Model Detail List Specification

Model Number	Input Voltage range (nominal voltage)	Output Voltage	Output Current <sub>(mA)</sub>		Input Current Full load <sub>(mA)</sub>		Efficiency	Max. Capacitive Load <sub>(μF)</sub>
			Min.	Max.	Max.	No.		
D050505D-2W	4.5~5.5VDC (5 VDC)	5.0;5.0V	20;20	200;200	250	32	80%	200
D050909D-2W		9.0;9.0V	12;12	111;111	243		82%	
D051212D-2W		12.0;12.0V	9;9	83;83	242		82%	
D051515D-2W		15.0;15.0V	7;7	67;67	242		83%	
D120505D-2W	10.8~13.2VDC (12 VDC)	5.0;5.0V	20;20	200;200	104	28	80%	
D120909D-2W		9.0;9.0V	12;12	111;111	100		83%	
D121212D-2W		12.0;12.0V	9;9	83;83	97		85%	
D121515D-2W		15.0;15.0V	7;7	67;67	100		83%	
D240505D-2W	21.6~26.4VDC (24 VDC)	5.0;5.0V	20;20	200;200	50	20	82%	
D240909D-2W		9.0;9.0V	12;12	111;111	49		84%	
D241212D-2W		12.0;12.0V	9;9	83;83	48		85%	
D241515D-2W		15.0;15.0V	7;7	67;67	48		86%	

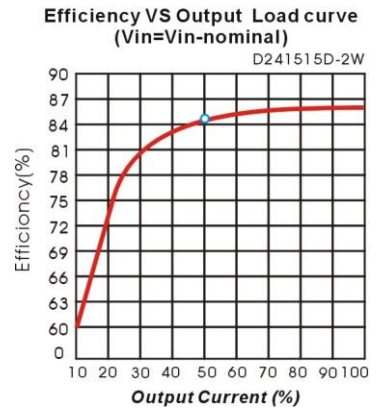
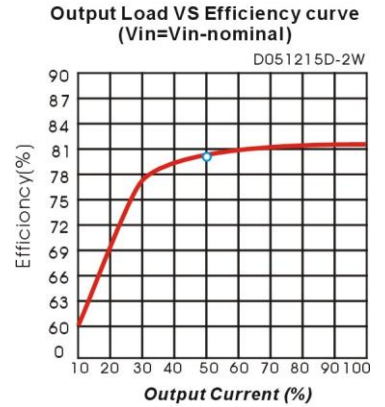
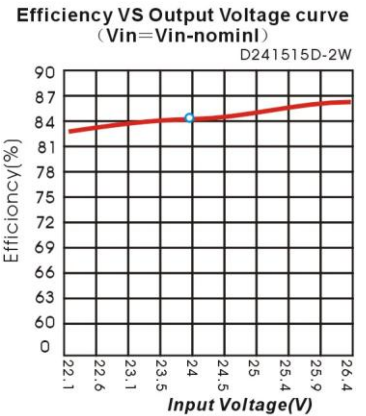
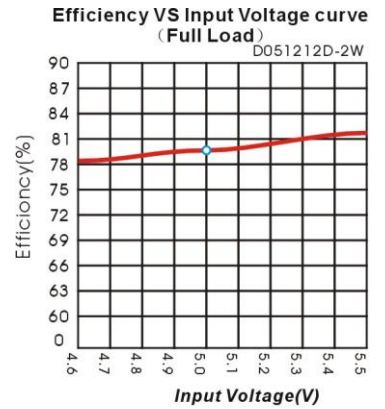
# DD-2W Series



## Output Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Output Power		0.2		2	W
Line Voltage Regulation	For Vin change of ±1%			±1.5	
Load regulation	10% to 100% load	5V output	10		%
		12V output	8		
		15V output	6		
		24V output	6		
Ripple	20MHz Bandwidth		50		mVp-p
Noise			75		
Temperature Drift	100% full load	±0.03		±0.05	%/°C
Input Filter		C Filter			

## Product typical Curve



## Environmental Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Storage Humidity	Non condensing			95	%
Temp. rise at full load			25		°C
Operating Temperature		-45		+85	
Storage Temperature	Power derating (above 85°C)	-55		+125	
Cooling		Free air convection			

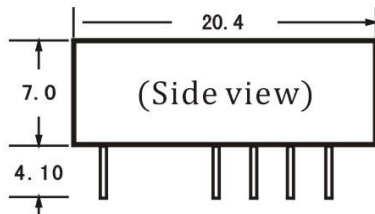
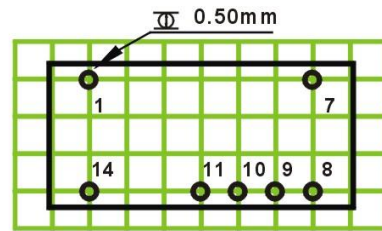
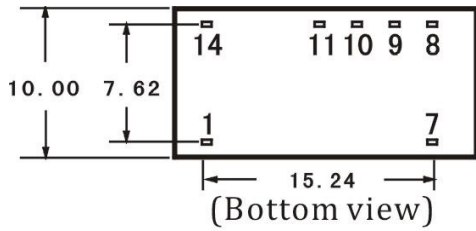
## Common Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Isolation Voltage	Tested for 1 minute and leakage current less than 1 mA	1000			VDC
Switching Frequency	Full load, nominal input		100	300	KHz
MTBF	MIL-HDBK-217F@25°C	1000			K hours
Isolation Resistance	Test at 500VDC	1000			MΩ
Weight			2.8		g

## Input Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Input Max. voltage	5 VDC Input (4.5~5.5V)			9	VDC
	12 VDC Input (10.8~13.2V)			15	
	24 VDC Input (21.6~26.4V)			28	
Input surge voltage (1 sec. Max.)	5 VDC Input (4.5~5.5V)			9	
	12 VDC Input (10.8~13.2V)			18	
	24 VDC Input (21.6~26.4V)			30	

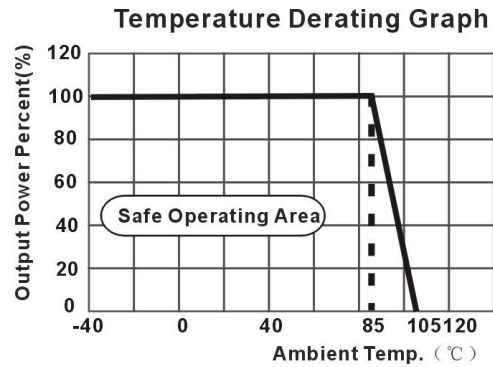
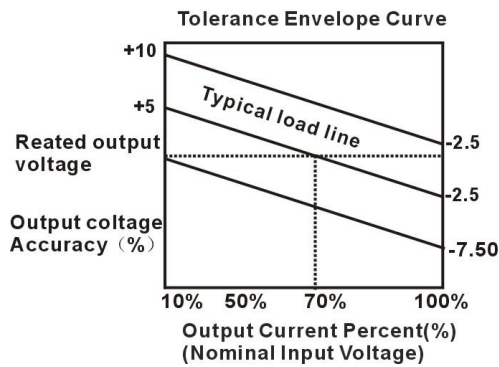
## Mechanical Dimensions & Recommended Footprint



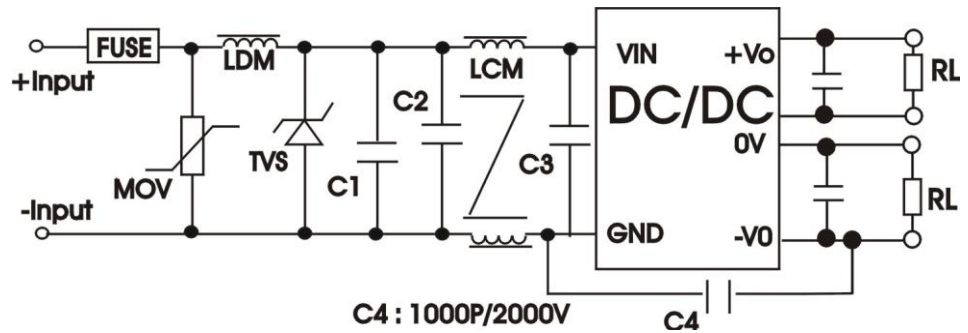
Note: Grid 2.54\*2.54mm  
Unit: mm  
General tolerances : 0.20mm

Package	Vin	GND	OV1	+Vo1	OV2	+Vo2	NC
DD	14	1	9	8	11	10	7

## Tolerance Envelope Curve & Temperature Derating Graph



## EMC Recommended Circuit



## EMC Module Application Circuit

