

Features

- ★ In-Out Isolation Voltage 1000 VDC
- ★ 8 PIN SIP Package
- ★ Temperature Range:-40℃ to +85℃
- ★ UL94V-0 Inflamming retarding package
- ★ MTBF>1million hours(25℃)
- ★ Short Circuit Protection
- ★ Without overshoot when turning On/Off

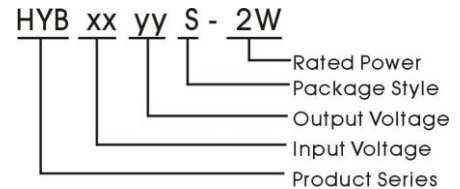


Applications

The HYB_S-2W Series are specially designed for applications where a wide range input voltage power supplies are isolated from the input power supply in a distributed power supply system on a circuit board. For these DC-DC converters, you can reduce the design point of failure and save the development of micro power supply's manpower, material and time costs, also better ensure product quality stability, protect safety and reliability of the end of products. These products apply to where:

1. Input voltage range $\leq 2:1$.
2. Input and output isolation noise is required.
3. Regulated and low ripple noise is required.

Such as: tele-communications etc, industrial control.



Model Detail List Specification

Model Number	Input Voltage range (nominal voltage)	Output Voltage	Output Current (mA)		Input Current Full load (mA)		Efficiency	Max. Capacitive Load(μF)
			Min.	Max.	Max.	No.		
HYB0505S-2W	4.5~9VDC (5 VDC)	5.0V	40	400	556	50	69%	410
HYB0509S-2W		9.0V	22	222	530		70%	
HYB0512S-2W		12.0V	16	167	520		73%	
HYB0515S-2W		15.0V	13	133	520		75%	
HYB1205S-2W	9~18VDC (12 VDC)	5.0V	40	400	214	24	78%	
HYB1209S-2W		9.0V	22	222	210		79%	
HYB1212S-2W		12.0V	16	167	208		80%	
HYB1215S-2W		15.0V	13	133	206		81%	
HYB2405S-2W	18~36VDC (24 VDC)	5.0V	40	400	110	12	78%	
HYB2409S-2W		9.0V	22	222	105		79%	
HYB2412S-2W		12.0V	16	167	100		80%	
HYB2415S-2W		15.0V	13	133	100		82%	
HYB4805S-2W	36~72VDC (48 VDC)	5.0V	40	400	54	8	76%	
HYB4809S-2W		9.0V	22	222	52		78%	
HYB4812S-2W		12.0V	16	167	52		82%	
HYB4815S-2W		15.0V	13	133	50		83%	

Output Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Output Power		0.1		2	W
Line Regulation	Full load, Input voltage from low to high		±0.2	±0.5	%
Load regulation	5% to 100% load		0.01	0.02	
Voltage Accuracy	No-load output		1.5	5	
Output Voltage Balance	Dual output, balanced loads		0.3	0.5	
Output Accuracy	5% to 100% load		1	3	
Ripple	20MHz Bandwidth		10		mVp-p
Noise			20		
Temperature Drift	100% load		±0.02	±0.03	%/°C
Short Circuit Protection		Continuous, automatic recovery			
Input Filter		C Filter			

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	100 % load, Stand input voltage		200		KHz
MTBF	MIL-HDBK-217F@25°C	1000			K hours
Isolation Resistance	Test at 500VDC	100			MΩ
Isolation Capacitance			100		pF
Weight			4.0		g

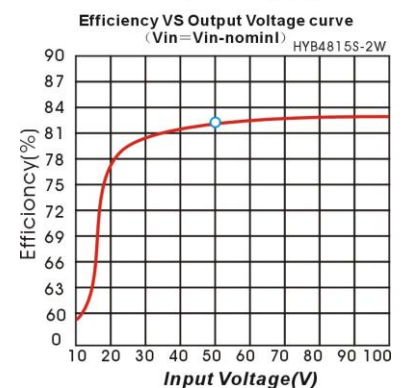
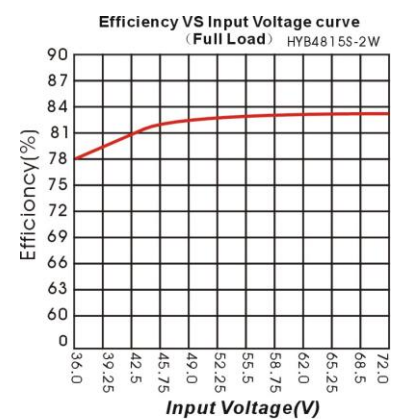
Environmental Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Storage Humidity	Non condensing			95	%
Temp. rise at full load	Ta=25°C		25		°C
Operating Temperature	Power derating (above 85°C)	-40		85	
Storage Temperature		-55		125	
Lead Temperature	1.5mm from case for 10 seconds			300	
Cooling		Free air convection			

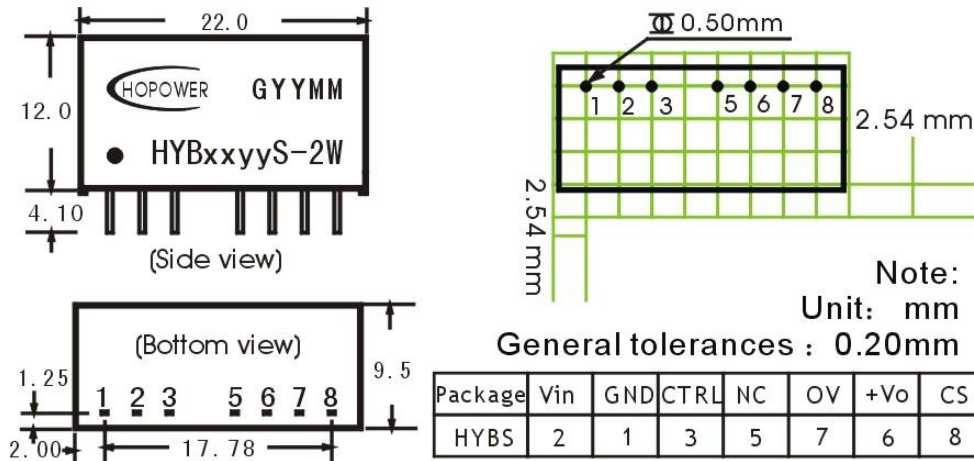
Input Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Input Max. voltage	5 VDC Input (4.5~9V)			10	VDC
	12 VDC Input (9~18V)			20	
	24 VDC Input (18~36V)			38	
	48 VDC Input (36~72V)			74	
Input surge voltage (1 sec. Max.)	5 VDC Input (4.5~9V)	4.5			VDC
	12 VDC Input (9~18V)	9			
	24 VDC Input (18~36V)	18			
	48 VDC Input (36~72V)	36			

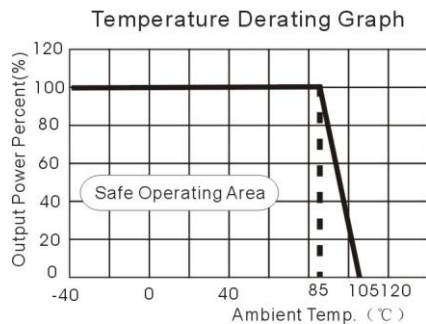
Product typical Curve



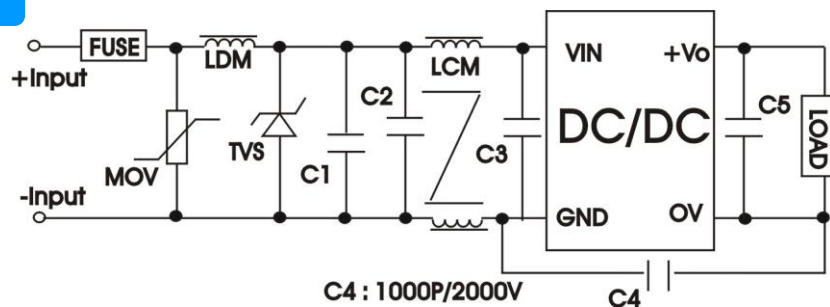
Mechanical Dimensions & Recommended Footprint



Temperature Derating Graph



EMC Recommended Circuit



EMC Module Application Circuit

